

# THE CULTIVATOR:

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## THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

NEW-YORK STATE AG. SOCIETY.

At the meeting of the Executive Committee of the  
New-York State Agricultural Society on the second  
Wednesday of May, in the absence of the President, the  
chair was taken by the Vice-President of the third Dis-  
trict, the Hon. ANTHONY VAN BERGEN.

Mr. Tucker reported that 4,600 copies of the Transac-  
tions of the Society for the year 1841, had been publish-  
ed by order of the Legislature, of which five hundred  
copies were for the State Ag. Society, and twenty copies  
were to be distributed to each of the County Agricul-  
tural Societies in the state.

On motion, it was resolved that the Recording Sec-  
retary be requested to prepare an index and title page for  
the Transactions, and have the copies belonging to the  
State Society bound in muslin covers.

On motion, it was resolved that a copy of the Socie-  
ty's Transactions for 1841, be presented to each of the  
contributors to the volume—to each of the officers of the  
Society for the last and present year, and to each person  
who contributed last year, or may this year, five dollars  
or more, to the funds of the society. Copies were also  
ordered to be presented to several Societies and Editors  
of Agricultural Journals.

The Constitution of the Agricultural Society of the  
United States having been read, and the propriety of  
sending a delegation from this Society to its annual  
meeting been discussed, it was, on motion of Mr. Tuck-  
er, unanimously resolved that twenty delegates be ap-  
pointed to represent the New-York State Ag. Society at  
the annual meeting of the Agricultural Society of the  
United States, to be held in Washington city on the first  
Wednesday of May, 1842.

The following gentlemen were appointed delegates:  
James S. Wadsworth, Esq., President of the Society;  
Joel B. Nott, Esq., Hon. Anthony Van Bergen, Francis  
Roten, Esq., and Dr. J. P. Beekman, Ex-Presidents;  
Ezra P. Prentice, Rev. Henry Colman, Luther Tucker,  
Henry S. Randall, J. McD. McIntyre, Harvey Baldwin,  
Benj. P. Johnson, Lewis A. Morrell, John J. Viele,  
Micah Sterling, Lewis F. Allen, Henry D. Grove, L.  
Bronk, G. V. Sackett, and W. H. Morris.

Messrs. Prentice, Tucker and McIntyre, were ap-  
pointed a committee to fill any vacancies which may  
occur in the delegation.

The committee to select the place for the Cattle Show  
and Fair, having reported, it was unanimously resolved  
that the exhibition be held on the grounds attached to  
the New Bull's Head Tavern, on the Albany and Troy  
turnpike, about half a mile north of Albany.

"YOUNG WALLACE," an improved Durham bull,  
bred by Wm. Pirnie, Esq., of Westchester county, N.  
Y., and which took the first premium at the fair of the  
American Institute in 1840, is now owned and in the  
possession of GEO. HEZLEP, Esq., Gustavus, Ohio, and  
oids fair, we are assured, to rival the best of his kind in  
that state.

WORK FOR THE MONTH.

MAY is a very busy month with the teams of the farm-  
er, and they should therefore receive extra attention  
and care. In feeding animals, one fact should not be  
lost sight of; which is, that animals fed on vegetable  
fibre, such as hay and grass, receive the most carbon,  
and therefore take on fat and increase in bulk, as carbon  
is the base of all oils, fat, &c., while animals fed on  
grain receive the most nitrogen, which forms the base  
of the muscular part of animals, and gives them their  
power and endurance. The farmer who expects his  
horses or oxen to wear well in work must give them  
grain; otherwise, their flesh will be of a quality that  
will not endure; and however well they may look at the  
commencement of labor, their flesh, without muscular  
consistence and firmness, will go like a spring frost.

If you wish to raise your calves, you may do it without  
keeping them on new milk. Diminish gradually the  
quantity of new milk sucked by them, or fed to them,  
and substitute skimmed milk with a little meal stirred in.  
Treated in this way, very good calves may be grown,  
and the new milk saved for butter.

Farmers are too negligent as to the kind of cows they  
keep. There are many cows which do not pay to the  
owner the expense of keeping them, and occasion an  
annual loss. It costs no more to keep a cow that will  
average nine or ten quarts a day than one that will aver-  
age only six or seven; and the difference in amount  
would in the course of the year be a handsome profit.  
If we estimate the cost of keeping a cow at twenty-five  
dollars, we shall find that if a cow gives six quarts per  
day the loss in keeping will be \$4.75. If the yield is  
eight quarts per day, then the profit will be about \$5.  
If the milk is ten quarts per day, the profit will be \$11.  
75. Now is the time to ascertain whether your cows are  
worth keeping or not; and the farmer should look well  
to this part of his husbandry.

May is the month in which Indian corn should be  
planted; and the importance of this crop to the farmer  
should induce the greatest care to secure a good growth.  
It is generally planted in hills; and as this allows of cul-  
ture both ways, it is commonly preferred; but a greater  
number of plants can be put on an acre if planted in  
drills; and most of the great crops which have been  
grown in the country have been produced in this way.  
Corn will bear heavy manuring; and to this crop and  
roots the barnyard manure should be applied, rather  
than directly to grain crops. Dugging in the hill is a  
bad practice, though corn may sometimes succeed when  
so planted. Many pieces of corn so planted failed en-  
tirely last year, as it will feel drouth much sooner than  
when the manure is scattered and incorporated with the  
whole soil. If the soil is deep and friable, hilling is  
worse than useless; but on hard soils, and those inclining  
to wet, hilling is advisable. These should never be  
made narrow, but broad and flat, for the benefit of the  
roots. Soaking in saltpetre, in vitriol, in copperas, tar-  
ring and plastering, and various other contrivances have  
been resorted to, to keep off worms, birds, &c.; some-  
times with success, but perhaps oftener without. There  
is an advantage, however, in some of these preparations,  
particularly the saltpetre and plaster, as a more rapid  
and vigorous growth is imparted, which places the plant  
sooner out of danger. A bushel of lime, a bushel of  
ashes, and a bushel of plaster, mixed together, and a  
handful dropped in the hill at the time of planting is an  
excellent application, and will frequently save the crop  
from the worm, as well as add materially to the amount  
of the crop. The plants must be kept free from weeds,  
the earth between the rows light and loose; and for this  
purpose, the cultivator is one of the best of implements.  
The rows of corn, and indeed of all other plants where  
practicable, should be planted north and south; as in this  
way, the plants receive the benefit of the sun in more di-  
rections than one. The distance of the hills must de-  
pend in a great measure on the kind of corn planted.  
Our common northern varieties require about three feet  
each way, three or four stalks in a hill; in drills, the  
rows three feet apart, the stalks in the rows one foot  
apart, or two together at eighteen inches. There is less  
attention paid to the manner of planting corn than almost  
anything else; and the consequence is, some of the seeds  
are six inches deep and others not more than two, the  
corn comes up unequally, and a good crop can scarcely  
be expected. Not more than three, nor less than two  
inches in depth is the best for corn; and the earth should  
be pressed upon the seed with the hoe, as it will facili-  
tate and equalize the germination.

Perhaps more failures from bad seed occur with corn  
than any other crop; and proportionate care should be

used in the selection. It is a good plan, where any  
doubt or uncertainty exists, to test the seed by sprouting  
a given number of kernels; and there should always be a  
liberal supply of seed used, since all but the number re-  
quired can, and should be pulled out at hoeing. The  
kinds of corn used at the South and West are the white  
gourd seed varieties. At the North, the smaller and ear-  
lier yellow and white kinds. The Dutton, Brown, Red  
Blaze, the several varieties of Canada whites and yel-  
lows, are all highly esteemed, and very productive.  
The earliest corn with which we are acquainted is the  
Canada Dwarf.

The sugar beet has of late received much attention  
and commendation as an object of field culture for feed-  
ing sheep and cows, and it promises to take the place of  
the turnep in our system of farming, the latter not being  
so well adapted to our hot, dry summers as the beet.  
The seed should be drilled in rows two and a half feet  
apart, the plants six inches apart in the rows—though  
this by some is considered close planting—kept clean,  
thinned if required, and the crop may be estimated at  
from 600 to 1000 bushels per acre. The sugar beet is  
good for all store animals, and for milch cows is proba-  
bly unrivaled, increasing the quantity of the milk, and  
making butter of the best quality.

The carrot should be sown this month, or as early as  
the ground is fit for the seed. We have found carrots  
one of the very best roots for horses, keeping them in  
fine health and condition, and every farmer knows their  
value for fattening animals. Their cultivation is like  
that of the beet; and that man greatly mistakes his true  
interest who neglects the culture of roots in his mode  
of farming.

Everybody cultivates the potatoe; but there is a vast  
difference in the product and quality of this root, partly  
depending on the variety, partly on the soil, and partly  
on the culture. The best soil for the potatoe is one ra-  
ther moist, full of vegetable mold, and loose and friable  
in its texture. Dry, sandy soils do not yield as good  
potatoes as moister ones, as the roots are not as thor-  
oughly secluded from air and light a condition indis-  
pensable to their perfection. The hills for the potatoe  
should be broad and flat, the ground kept clean till the  
vines cover the surface, and the roots should not be dis-  
turbed in the culture, as it deranges the formation of the  
tubers. The Pinkeye and the Mercer are the best table  
potatoes; the Rohans, Sardinias, and Long Reds for field  
culture or for animals.

It is an excellent plan to remove the grass for a few  
feet from fruit trees, and with a spade to loosen the earth  
in the spring of the year. Trees will well repay care  
and attention, by the increase in the quantity and quality  
of the fruit. It is sometimes convenient to graft in this  
month; and if performed in the early part before the  
leaves are too much expanded, will usually succeed. If  
the stems of trees are washed with lye, or whitewash, a  
vast many insects or their eggs on the bark will be de-  
stroyed, and the tree proportionably benefited. Where  
the borer has made his appearance apple trees should be  
examined about the roots, and the grub hunted out and  
killed. The peach and nectarine should be looked to,  
to detect and destroy the grub so fatal to them, and which  
can now be found beneath the bark near the surface of  
the ground, or on the root. If your hens or geese have  
free access to your plum or cherry trees, they will mate-  
rially aid in destroying the curculio, which will be now  
leaving its winter retreat in the earth to prey on the  
fruit. Don't suffer a caterpillar's nest to escape your no-  
tice, or destruction. It is easy to kill them while young;  
but when they leave their nests and scatter over the tree,  
they cannot be hurt, while the injury they do is immense.

Give constant attention to your animals, and do not  
imagine that care ceases when the stock goes to the  
fields. Do not be in too much of a haste to turn them to  
pasture. Better keep them on hay and roots until there  
is a good bite of grass, than have them, to satisfy hunger,  
gnaw the young grass and clover to the very roots.  
Pastures so fed will scarcely recover from the effect dur-  
ing the whole season.

May is a good month to sow plaster. Use it liberally;  
but for the sake of it, don't neglect the use or prepara-  
tion of manures. Both should go together. On pastures,  
plaster may be used without. On meadows kept in grass,  
top dressings of manure should accompany its application.

We hope some of our friends will try sowing some corn  
broadcast for soiling or for fodder. That the process  
would succeed we have scarce a doubt; and where food  
for animals is scarce, summer or winter, such a resource  
would be invaluable. May is a very good month for  
draining lands, planting trees, and making such improve-  
ments as the situation of the farm, or the season demands.



## CULTURE OF HEMP.

THE vast quantities of hemp consumed in this country for cotton bagging, cordage and the use of the navy, are rendering the production of the article annually of more consequence, particularly as the greater part is exported from Russia; and so far, we are rendered tributary to a foreign power for an article which we are abundantly able to produce ourselves. At present, the quality of the imported hemp is superior in some respects to the American; but experience in its culture and preparation will do away this difference, and render the home article equal to the best grown abroad. We were expecting a paper from Judge Beatty of Kentucky on the culture of hemp, but we regret to learn from him that circumstances beyond his control have prevented the preparation of such an article, and he has referred us to his celebrated prize essay on the growth and preparation of hemp, which has been forwarded and received, as a full account of the manner which has proved most successful in Kentucky. From that, and other sources, we shall now collect such hints as will furnish the information necessary to those who propose attempting the hemp culture.

**SEED.**—One of the most essential things in the growth of this crop is a supply of pure and good seed; and to be perfectly certain on this point, every farmer will find it to his advantage to grow his own. Hemp seeds, like all those containing oil, are very apt to heat and become unfit for seed if kept over one or two years, and can scarcely be preserved in a state fit for vegetation unless spread on a floor and frequently stirred during the summer months. The best way is to grow in one year the seed which is to be sown the next. Judge B. recommends the richest ground for raising hemp seed. Highly manured land is better than newly cleared land; and old meadows, or land used a long time for pasture, is good for this purpose. Where turf land is used, it should be plowed in the fall, and if not rich, a dressing of manure should be given. The ground must be finely pulverized by plowing and harrowing, and then the seed may be planted in hills, or sown in drills. The first method is generally preferred, as the after culture, cleaning the ground, &c., is more easily performed when the seed hemp is in hills than when it is in drills, and the seed is thought to be more perfect. It is common to plant the hills five feet apart, to suffer four or five stalks to stand in a hill till the blossom hemp is removed, and then to reduce the number of stalks to two in each hill. There are other methods of planting; but the great object is room for a vigorous seed plant; and whatever plan accomplishes this, will succeed. The ground must be kept clean by hoeings or plowings. In order to give the seed bearing plants room to expand and perfect their seed, it is necessary to cut out the blossom or male hemp; but this cutting out must not be performed too early or too rigidly, as the pollen of these blossoms are necessary to the perfection of the seed. Judge B. recommends that as soon as the seed hemp has so far advanced that the blossom hemp can be readily distinguished, it should all be cut out except one stalk in every other hill and every other row. This will secure a sufficient supply of pollen to fertilize all the seed bearing plants, and render the seed certain of vegetation. After these male or blossom plants have discharged their fertilizing dust, they also may be removed, though this is not essential, where only one or two seed bearing plants are left in each hill. The seed for plants, from which seed is to be grown, should be sown as early as is consistent with safety to the young plants from frost. In Kentucky the month of April is preferred; in our latitudes the planting must be later. Planted early, it will be fit to gather for seed in September; and in cutting the plants, they must be handled or shaken as little as possible, as the seeds drop easily. The plants may be carefully set up in shocks until dry enough to thresh easily, which may be done on a tight floor, either by striking the plants on a plank, or by beating with a flail. The first method gives the best seed. When threshed, the seed should be cleaned at once, and then spread out in some safe, dry shelter until thoroughly dry, when it may be put in barrels with open heads or in bags until wanted. Rats and mice are very fond of hemp seed, and these must always be guarded against. Judge Beatty says—"Old seed will not generally answer for sowing. During the summer succeeding the year in which it was reared, it goes through a heat which destroys its vegetating powers. If, however, it were to be spread out thin on a dry floor before the commencement of hot weather, and kept thus spread out during the summer, there can be no doubt it would answer for sowing the ensuing year. But it is always safest not to trust to old seed, without having first tested it by planting a certain number of seeds, and thus ascertaining how many will vegetate."

**PREPARATION OF THE GROUND.**—There are few crops grown that require so complete a tillage and pulverization of the ground as hemp. It must be as thoroughly reduced, and made as fine and as clean as possible; and the hemp grower may usually expect his crop will be in proportion to the care and labor bestowed in fitting the soil for the seed. The ground intended for hemp should be plowed deep in the fall, or very early in the spring, that it may have the benefit of the frosts in pulverizing the soil; and no animals should be allowed to go upon it, as all pressure or compactness is injurious. When the time for sowing arrives it must be again plowed and harrowed; and these operations, particularly the latter, must be repeated or continued until the surface is perfectly fine and level. The seed must now be

sown and harrowed both ways, and then if rolled, the equal germination of the seeds will be greatly advanced, and the surface left smooth and even for the better action of the hemp cradle. In late sowings, or when the ground is destitute of the moisture necessary for germination, it will be safer to plow in the seed with a shallow furrow, or with shovel plows. This depth of covering will insure their coming up, unless the ground is very dry; in which case, it will be best to wait for rain before sowing. In Kentucky, the usual rate of seed per acre is one bushel and a peck; but where the ground is in first rate condition, and the proper degree of moisture to insure germination, Judge Beatty thinks from his experience that one bushel and one-eighth of seed will be sufficient. This is much less than has been generally used in this country, or recommended in the hemp districts of Europe. From two to three bushels of seed is the quantity most commonly preferred; but there is no question, that where the seed and the soil are both of the right kind, the quantity proposed by Judge Beatty would furnish as many plants as could grow on an acre. Experience shows that freshly manured lands do not produce as good hemp as those in which the manure has become fully decomposed and incorporated. Newly manured lands give a coarse stock and lint, which thoroughly prepared soils will not do. Old meadows turned over in the fall, that the sod may be partially decomposed, or pastures that have been used for sheep walks, are found to be excellent for hemp, the vegetable and animal matter in such soils being in the proper condition to insure its action on the plants.

**SUCCESSION OF HEMP CROPS.**—Hemp is one of the few plants which will admit of sowing for a number of years in succession on the same soil or field. This is important, as it enables the grower to keep his hemp fields much more easily clean, and in good order, than if a rotation was followed, or new fields annually taken for that purpose. There is another advantage. As the field when the hemp is taken off is destitute of all vegetation, there is no excuse for allowing animals to run in these fields, and consequently they are more easily kept light and mellow. Experience proves that hemp is a crop that deteriorates the soil in but a slight degree if at all. The Farmers' Guide states on good authority, that thirteen or fourteen successive crops were taken from the same field and that the last was the best; and Judge Beatty adds—"I have no doubt of the correctness of this statement, because it conforms to my own experience. A field containing 12½ acres, upon which nine or ten successive crops have been grown, produced last season 9809 pounds of hemp, equal to 789 pounds per acre. This was quite as good a yield, taking into consideration the unfavorableness of the season, as I have ever had from the same ground." It is evident, however, that unless hemp soils are originally exceeding rich in nutritive matter, or this matter is renewed by the overflowing of streams, as it is on some bottom lands, exhaustion and a consequent failure of the crop must eventually take place. To prevent this, some hemp growers apply, every second year, a dressing of compost manure to their hemp lands.

**TIME OF SOWING.**—According to Low, and the Russian practice, hemp should be sown about the last of April or the first of May. Judge Beatty says—"It may be sowed at any time between the 10th of April and last of May, when the ground is in a proper state for sowing; that is, neither too wet nor too dry." As a general rule, early sown hemp produces the best crop; the plant getting more of its growth, and greater maturity, before the hot dry weather of our summer commences. Frosts do not often destroy it, though a succession of frosty cold nights seriously retards its growth and injures the crop. This it does by making the plant shorter than it would be under favorable circumstances, and thus reduces the weight. The latest sown hemp will be the lightest, and afford the least profit, although it will mature in the middle states if sown as late as the 10th or middle of June. Where considerable quantities of hemp are grown, it is found advantageous to have the several fields come to maturity in succession, as this difference in ripening gives more time for cutting and securing the crop.

**TIME FOR CUTTING.**—According to Judge B., "the time for cutting or pulling hemp is indicated by the leaves of the male hemp becoming yellow, and most of them falling off. Upon a close examination about this period, it will be found that some of the blossom stalks will have entirely shed their leaves, and begin to turn of a dark color, having lost their yellow hue. When this discovery is made, no time should be lost in cutting or pulling the hemp. But it may stand a week longer without any material injury, except that the blossom hemp will not take so good a rot, and will be somewhat worse to break." Thus, in Kentucky, and we believe generally in this country, the blossoming and the seed bearing plants, or the males and females as they are sometimes termed, are all gathered at the same time. A different practice prevails in the hemp countries of Europe. There, the male or blossom plants are pulled as soon as the leaves and stalk are yellow and the flowers faded, while the females or seed bearing plants are allowed to stand some five weeks longer, thus making two hemp harvests. The two kinds are kept separate, and the first pulled is usually the first rotted and fitted for use. Whether this difference in the time of pulling may not produce a greater uniformity in the quality of each kind, and increase the value of the whole, we cannot say; but it appears probable such should be the result. In Europe, the practice is to pull the hemp; in this country, cutting it with the hemp cradle, (an implement like the grain cradle, except that the sythe, fingers, &c., are

stronger and shorter,) is generally preferred. If the ground is made smooth at the time of sowing, very little lint will be lost, as the hemp can be cut close to the ground. Beside, the crop in handling will be much cleaner, and cutting is vastly more expeditious than pulling, which enables the hemp grower, with the same number of hands, to greatly increase his crop, without danger of its suffering for want of cutting or pulling.

**CURING THE HEMP.**—On this point, Judge B. remarks—"When hemp is cut or pulled, it should be spread on the ground, keeping the butt ends even, and should be suffered to lie till well cured; this will require a week, or somewhat less, if the weather is clear and warm. If it get a rain in the mean time, it will be an advantage, as it will cause the leaves more readily to leave the stalk." Mr. Allen, who was extensively engaged in the hemp culture in Lewis county, in this state, and who in 1832 received a premium from the American Institute for the best specimen of hemp exhibited, says—"The hemp when cut is to remain in the swath one day, and then is to be turned and remain one day, and on the third day to be bound near the butt in very small bundles with a small band of the hemp. Then to be set up on the butts in shocks until it becomes perfectly dry." When thoroughly dried, it may be put in ricks or stacks to remain till wanted for rotting. At the West, ricks are preferred, because in this way of putting up the hemp it is all secured against the weather with the exception of the roof, (if this is formed of hemp,) while in stacking, a portion of the hemp will always be more or less exposed. Some hemp growers, after the hemp is cured, sit it up in large shocks in the fields, the tops secured by close bands, and butts resting on the ground. If hemp stands long in this manner it is evident the butts must be partially rotted, and even the outsides of the shocks will be more or less damaged. These parts of the hemp when spread out for rotting, or when put in the vats, will be spoiled before the protected parts are sufficiently rotted to produce good hemp.

**ROTTING AND GETTING OUT.**—There are two methods of rotting hemp. One, by spreading it on the ground, where it is exposed to rains and dews until the lint separates readily from the stem; a process called dew rotting. The other is by steeping the hemp in vats or pools of water until the same effect of the separation of lint is produced. These processes are conducted on the same principles, and for the same ends, as the flax rotting, with which every farmer is acquainted. Grass ground, clean pastures or meadows, have generally been chosen for spreading hemp, where dew rotting is practiced; but some of the most successful hemp growers of the West, and among these Judge B., now prefer spreading the hemp for rotting on the same land that produced the crop. The reasons assigned for this preference are, that the labor of hauling the hemp is prevented, the ricks being made on the ground—the manure arising from the leaves, &c., is saved, as it will be kept on the ground—the hemp rots quicker and more evenly than on grass land—the ground is free from stock, and is benefited by being covered with the rotting hemp—and lastly, grass lands are injured by rotting hemp upon them. The following directions for water rotting are from the report of Mr. Allen, made to the Institute: "Vats are prepared near the mills of about six feet deep and eight feet wide; the length to be varied at pleasure, or the quantity to be rotted. The bundles of hemp are then to be carefully laid in lengthwise until the vat is full, and pressed down with any sufficient weight to keep it solid. Water is then to be let in on the top until the vat is filled, and is to remain for two days to saturate the mass, after which it is to be drawn off, and a supply of running water to be introduced until the vat is filled, which is to run off continually until the hemp is properly rotted. The time will depend on the temperature of the water, and will be from six to twenty days; the water is then let off, and after about eight hours the hemp is to be taken out and set up on the butts in the field, after opening the bundles, against a fence, or ropes running through stakes fastened in the ground for that purpose. When perfectly dry, it is bound up and taken to a dry house where it is to be kiln dried for about two days, from which it is to be taken to the mills for breaking and dressing." We believe that European or Russian hemp is invariably water rotted, which gives the fibre a greater degree of uniformity than dew rotting can do, and unquestionably is one cause of the superiority of the foreign article. In Russia, the hemp is rotted in pools formed in slightly running brooks, the water of which is exposed to the sun, and acquires a temperature favorable to a speedy fermentation and rotting of the stem of the hemp. Whether in pools or vats, the hemp must be wholly covered with water, but it should not be so loaded with weights as to press it closely upon the bottom. There is little difficulty in knowing when the hemp is sufficiently rotted. Judge B. says that when this operation is sufficiently advanced, "the stalks of the hemp lose that hard, sticky appearance or feel they retain till the process is completed. The lint also begins to separate from the stalk, and the fibres will show themselves somewhat like the strings of a fiddle bow, attached to the stalk at two distant points, and separate in the middle. This is a certain indication that the hemp has a good rot."

Hemp is fitted for market by separating the lint from the woody fibre, and its value is in no inconsiderable degree depending on this process of dressing. It is sometimes prepared by hand in the same manner as flax; but this is a slow and tedious operation, although the quality of the article is usually good. Various machines for breaking and cleaning hemp have been put in operation



in different parts of the country, and have materially lessened the labor of preparing this crop for market. Which is the best or most approved, we have no means of determining. Further attention we doubt not will still more improve the processes of hemp culture, and remove many of the obstacles which are at present in the way of producing a perfect article. When we remember that the naval and commercial marine of the United States requires annually some ten or twelve thousand tons of hemp, independent of the quantities required for cotton bagging, &c. &c., the importance of the hemp culture will be better understood and acknowledged, and the necessity of continued efforts in the culture more fully apparent.

### Notices of New Publications.

#### TRANSACTIONS OF THE N. Y. S. A. SOCIETY.

By the 5th section of the "Act for the encouragement of Agriculture," passed May 5, 1841, it is made the duty of the Executive Committee of the New-York State Agricultural Society to examine all reports and returns made by the presidents of the County Ag. Societies, and arrange and report the same, together with a statement of their own proceedings, to the secretary of state, in the early part of each year.

The first report, made in consequence of this provision, is now before us, under the above title; and though possessing some defects incident to the nature of the subject, or rather a first undertaking, we think it will be received as a favorable indication of what the society has already done, and the great good we trust it is yet destined to accomplish. The report before us embraces—1. A brief account of the origin of the society in 1832, its reorganization in 1841, and the acts of the legislature in favor and in aid of agriculture. 2. The proceedings of the society for 1841, under the new organization, embracing an account of the several meetings of the society; the fairs at Syracuse and annual meeting at Albany; premiums awarded, and reports made to the Committee. 3. Reports of county societies. This part contains reports from the counties of Tompkins, Orange, Monroe and Steuben, Orleans, Oneida, Niagara, Washington, Jefferson and Onondaga, with some suggestions as to the manner in which the intentions of the legislature in granting the aid of the state may be best met in the future proceedings of the county societies. 4. Report of the corresponding secretary. By direction of the Executive Committee, the Cor. Sec'y opened a communication with gentlemen in different parts of this state, the United States, and Great Britain, on the various topics connected with agriculture, for the purpose of collecting information which would be useful to the farmer, both theoretically and practically. The call has been cheerfully responded to; and the following schedule of papers will show the auspicious result:

Agriculture of Cayuga county, by U. F. Doubleday and Ira Hookins.  
Agriculture of Cortland county, by Jesse Ives.  
Agriculture of Dutchess county, by Henry Staats.  
Agriculture of Herkimer county, by Aaron Petrie.  
Agriculture of Madison county, by Alex. Krumbhaar and Thomas Mellen.  
Agriculture of Ontario county, by Z. Barton Stout.  
Agriculture of Putnam county, by Leonard Cliff.  
Agriculture of Queens county, by Albert G. Carl.  
Agriculture of Saratoga county, by Howell Gardner.  
Agriculture of Washington county, by Abira Eldridge.  
Agriculture of South Carolina, by Hon. Joel R. Poinsett.  
Agriculture of Pennsylvania, by Wm. Penn Kinzer.  
Agriculture of Virginia, by James M. Garnett.  
Agriculture of England, by John Hannam.  
On Tillage, by Willis Gaylord.  
On the Fruit Garden, by David Thomas.  
On the Increase and Prospects of Silk Culture in the United States, by Gideon B. Smith.  
On the Culture and best variety of the Mulberry, by Daniel Stebbins.  
On the different Breeds of Cattle: the most profitable Breeds, by Henry S. Randall.  
On the points by which Cattle should be judged—the best breed, by Heman Chapin.  
On Cattle—Sheep—Root Culture, by Daniel S. Curtiss.  
On Geology, as connected with Agriculture, by Willis Gaylord.  
On Charcoal as a Manure, by John H. Hepburn.  
On Wintering Horses, by Ezra Meech.  
On the most profitable breed of Horses, by Wm. B. Ludlow.  
On the History of Sheep, by Henry S. Randall.  
On Merinos and Saxons, by William Jarvis.  
On the Saxon Sheep—its value compared with the Merino, and with the English breeds, by Henry D. Grove.  
On the Paular Merino, by S. W. Jewett.  
On the Management of Sheep, by L. A. Morrell.  
On the Construction of Fences, by H. S. Morse.  
On the Culture of Hemp, by Joseph Sawyer.  
On the Introduction of Italian Wheat into the United States, by Jay Hathaway.  
On Domestic Poultry, by C. N. Bement.  
On Feeding Swine, with Suggestions as to the best breed, by E. P. Johnson.  
On the Grape, by L. B. Langworthy.  
Letter from Samuel Lawrence, Esq.

We have room in this place only to invite the attention of the reader to the papers on the "Agriculture of England," by J. Hannam; the Fruit Garden, by David Thomas; "Different Breeds of Cattle," by the Cor. Sec'y; "Domestic Poultry," by C. N. Bement; "Management of Sheep," by L. A. Morrell; and "Feeding Swine, with Suggestions as to the best breed," by B. P. Johnson. The report contains fine engravings of several of the animals that obtained the premiums at the Society's fair at Syracuse. We do not deem it necessary to remark on the report farther in this place, as by the liberality of the legislature, ten times the usual number of copies were printed for the use of the house—500 copies for the State Agricultural Society, and 20 copies for each agricultural society in the state, thus wisely ensuring an

extensive circulation. That it will be welcomed by the farmer, and be considered as a creditable and useful contribution to the agricultural stock of information, we do not doubt.

#### THE MUCK MANUAL FOR FARMERS.

UNDER this unpretending title, Dr. S. L. DANA of Lowell, Massachusetts, has presented to the agricultural public a work of sterling value, and deserving a thorough examination by every farmer, both for the theoretical and practical views it contains. Dr. Dana has long been connected with the extensive manufactories of Lowell as the chemist of the print department; and the extensive use of cow dung for the purposes of these establishments led him to a more thorough examination of its nature, with the expectation of providing a substitute, than had yet been made. This, of course, embraced its use as a manure; and some of the opinions of Dr. D. having excited considerable attention, the citizens of Lowell requested him to deliver a series of lectures on agriculture and its kindred topics before them. This was done; and he informs us this volume contains the substance of those lectures. No farmer can read this work without benefit, or being impressed with the importance of chemistry as applied to agriculture. The man of science may not be able to give in his adhesion, at once, to all Dr. Dana's views; but so well reasoned are his conclusions from his premises, that we think the grounds of dissent with any will be few. His explanation of the action of gypsum differs from that of Liebig; and he dissents from the position that rain or snow water contains free carbonate of ammonia, although he admits the existence, in both, of ammoniacal salts. The late hour, however, at which we have received the volume prevents our noticing it as fully as it deserves, and we shall return to it at an early opportunity. Meantime, we cordially recommend it, as a most valuable contribution to the great science of agricultural chemistry. D. Bixby of Lowell, publisher.

#### JOHNSTON'S LECTURES ON AG. CHEMISTRY.

THERE can be no question but that the scientific part of agriculture has received an astonishing impulse from the publication of Prof. Liebig. Chemists seemed disposed to rest with the conclusions to which Davy and Chaptal had arrived, and few were disposed to hazard any new investigations. Liebig's book disclosed at once the vastness of the field to be occupied, and an army of laborers have rushed to its occupancy. We have noticed above, the rich fruits which have been gathered by one of the distinguished men who are engaged in this important pursuit; and the volume before us is another contribution from an ardent and successful laborer in the same field. Every reader of agricultural works is familiar with the name of Prof. JOHNSTON of the University of Durham in England. The volume consists of eight lectures delivered before the Durham Co. Ag. Society, and the members of the Durham Farmer's Club; and commencing with the simplest elements of Ag. Geology and Chemistry, conducts the reader to the consideration of the most important principles connected with vegetable growth, organization, and decomposition. The constituent parts of vegetables, the earthy salts, silicates, &c., the manner in which substances used as manures contribute to the growth of plants, and all the questions relating to vegetable physiology are passed in review, and discussed with the ability of a master. On some points, particularly those relating to the composition and action of animal manures, we consider him less clear and satisfactory than Dr. Dana, while the limit assigned by himself to the work of the latter did not allow so full an examination of the mineral or earthy constituents of the globe as has been done by Prof. Johnston. We need not say that we are happy to notice the publication of such works as these Lectures of Dana and Johnston. They will be read extensively; they will make farmers think; they will place agriculture in a new and more imposing light in the minds of thousands; since science in its complicated forms is proved to be but its handmaid and servant. Such works are magazines of facts, from which the farmer will draw conclusions aiding him in his pursuits, and the study of which will add materially to his stock of available and therefore useful knowledge. Messrs. Wiley & Putnam of New-York are the publishers of this, as well as of several other valuable agricultural works which we have lately had occasion to notice; and the farming public are certainly much indebted to them for their enterprise.

ADDRESS before the N. Y. S. Ag. Society, at their annual meeting in Albany, January, 1842. By J. B. NOTT, Esq.

WE welcome the appearance of the address of Prof. Nott before the public, in a form and manner suitable to the sound and patriotic sentiments it embodies, and the elegant and forcible style in which these sentiments are conveyed. Into the details of agriculture Prof. N. did not enter, and this may be deemed a practical defect by some, yet the reader on the whole will be apt to forget the omission, or visit it with the slightest possible degree of censure. The address gives a notice of the former agricultural societies of this state, alludes to their failure, traces the history briefly of some other societies, particularly the Scotch Highland, and the Berkshire Ag. Societies, inquires into the cause of the success of these, and suggests measures to insure the continued prosperity of that of New-York. The cause to which the address traces the success of the two societies we have named, is their cattle shows and fairs; and the conclusion at which he arrives is, that agricultural societies

without these cannot long profitably exist. The suggestions respecting a Board of Agriculture, the necessity of placing the funds of the society on a permanent footing, the benefits of knowledge in the pursuit or practice of agriculture, and the advantages that would ensue from the establishment of agricultural schools, are all deserving, and will receive an attentive consideration.

#### DR. BULLIONS' THREE GRAMMARS.

THE Principles of English Grammar; comprising the substance of the most approved English Grammars extant, with copious exercises in parsing and syntax, for the use of academies and common schools, on the plan of Murray's Grammar. Fourth edition, revised and corrected, by the Rev. Peter Bullions, D. D. Professor of Languages in the Albany Academy.

Also, by the same author, "PRINCIPLES OF LATIN GRAMMAR," and "PRINCIPLES OF GREEK GRAMMAR," constructed on the same plan, and comprising the substance of the most approved grammars extant for the use of colleges and academies.

The English grammar, whose title is given above, has been prepared with great care, and with special reference to the wants of common schools in the United States. The author's aim, as he states in his preface, has been to correct what is erroneous, to retrench what is superfluous or unimportant, to compress what is prolix, to elucidate what is obscure, to determine what is left doubtful, to supply what is defective in the books already in use, and to bring up the whole to that point which the present state of education requires. We use the language of men whose standing and scholarship is a guarantee for the truth of the statement, when we say that this English grammar is "at once, the most concise and the most comprehensive of any with which we are acquainted; as furnishing a satisfactory solution of nearly all the difficulties of the English language; as containing a full series of exercises in false syntax, with rules for their correction; and finally, that the arrangement is in every way calculated to carry the pupil from step to step in the successful acquisition of that most important end of education, the knowledge and use of the English language."

The Latin and the Greek Grammars, by the same author, are constructed on the same plan, and have received the highest commendation from the most competent judges. To use the language of the New-York Evangelist, in these works—"Dr. Bullions has aimed to express the principles of grammar which are common to the three languages in the same terms as nearly as possible. Thus he furnishes the scholar with the means of comparing the languages both in their points of agreement and difference. The value of comparative grammar as a means of mental discipline and enlargement has not been sufficiently realized."

#### SILLIMAN'S JOURNAL FOR APRIL, 1842.

THIS is a rich number for the man of science, and as usual contains a number of articles interesting to the general reader. The review of the N. Y. Geological Reports, though brief, is well written; and the paper by Prof. Maclean of Edinburgh, on the Glacial Theory of Prof. Agassiz, will arrest attention, and well repay perusal. There is a fine engraving of a new trilobite, found in Ohio, in the strata that may be considered the equivalent of our Trenton limestone, by Prof. Locke. Published at New-Haven, at \$6 per annum, postage paid by the publishers, when the money is sent in advance.

#### NORTH AMERICAN REVIEW, NO. 115, APRIL, 1842.

THIS number of our favorite review contains 12 articles, all on interesting subjects and ably treated. Of these, the "Red Man of America," the "Early History of New-York," and the review of "Liebig's Organic Chemistry," will be read with interest. We are glad to perceive that a second edition of Webster's American edition of Liebig has been just issued from the press. This speaks well for the diffusion of agricultural knowledge. Munroe & Company, Boston, are the publishers of the North American.

#### NEW PERIODICALS.

*The American Botanical and Horticultural Magazine.*—We have been favored with the first number of this magazine, which was commenced in New-York last month, and is hereafter to be issued on the first of each month. Each number is to contain at least four colored lithographic drawings of flowers, executed from nature by the most experienced and skilful artists, with 24 pages large octavo letter-press. The drawings in this number consist of the *Primula sinensis*, *Siphocampylus bicolor*, *Cineraria Waterhousiana*, and *Chorizanthe varium*. They, as well as the letter-press, are executed in the best manner—quite equal to any similar London work which has fallen under our notice. It is edited by Prof. J. H. GRISCOM, M. D., and published by Geo. S. Curry & Co., 167 Broadway, New-York. Price 75 cents per number, or \$8 a year. We shall be rejoiced to hear that the work is liberally patronized.

*The American Agriculturist.*—This is a new agricultural monthly, to be published in New-York under the editorial direction of Messrs. A. B. & R. L. ALLEN, formerly of Buffalo, by Geo. A. Peters, 32 pages octavo, at \$1 a year. The editors are well known as correspondents of several of our agricultural journals, and will no doubt make an excellent paper.

# AGRICULTURAL STATISTICS OF THE UNITED STATES,

AS ESTIMATED BY MR. ELLSWORTH, FOR 1841.—Table I.

States, &c.	Popula- tion 1840.	Bushels wheat.	Bushels barley.	Bushels oats.	Bushels rye.	Bus. buck wheat.	Bushels In- dian corn.	Bushels po- tatoes.	Tons of hay.	T's flax & hemp.	Pounds tobacco.	Pounds of cotton.	Pounds of rice.	lbs. silk coccons.	Pounds of sugar.	Gallons wine.
1 Maine, .....	501,974	987,412	360,267	1,119,429	143,468	55,020	988,549	10,912,821	713,285	40	75	.....	.....	827	263,692	2,349
2 New Hampshire, .....	284,574	436,816	128,964	1,312,127	317,418	106,301	191,275	6,573,406	508,217	28	264	.....	.....	692	169,519	104
3 Massachusetts, .....	737,699	189,571	157,903	1,276,491	309,308	91,274	1,906,273	4,947,808	617,663	9	87,935	.....	.....	19,843	496,341	207
4 Rhode-Island, .....	108,590	2,407	69,139	188,668	37,973	3,276	471,022	1,003,170	69,881	1	454	.....	.....	745	55	801
5 Connecticut, .....	209,978	98,097	81,294	1,431,454	606,222	334,008	1,521,191	3,002,142	497,204	45	547,694	.....	.....	93,611	56,372	1,924
6 Vermont, .....	291,948	512,461	65,243	2,601,423	241,061	231,122	1,167,219	9,112,008	924,379	31	710	.....	.....	6,684	5,119,264	109
7 New York, .....	2,428,921	12,399,041	2,201,041	21,896,206	2,723,241	2,328,911	11,441,236	30,617,009	3,472,118	1,608	984	.....	.....	2,425	11,102,070	8,162
8 New Jersey, .....	373,306	919,043	13,009	3,745,061	1,908,984	1,007,340	6,134,366	2,486,482	401,833	2,197	2,666	.....	.....	3,116	67	9,311
9 Pennsylvania, .....	1,734,033	12,872,219	203,888	20,872,591	6,942,643	2,485,132	14,969,472	9,747,343	2,004,162	2,987	415,908	.....	.....	17,324	2,894,016	16,115
10 Delaware, .....	78,086	317,109	5,119	937,100	39,162	13,127	2,164,907	213,009	28,007	54	366	.....	.....	2,963	.....	296
11 Maryland, .....	470,019	3,747,652	3,713	2,827,363	671,420	60,966	6,998,124	827,363	87,351	807	26,182,810	.....	.....	8,677	39,892	7,763
12 Virginia, .....	1,239,797	10,010,105	83,025	12,962,108	1,317,674	297,109	33,987,355	3,889,365	367,602	26,141	79,400,192	.....	.....	8,341	1,557,206	13,504
13 North Carolina, .....	733,419	2,183,026	4,208	3,832,729	296,765	18,469	24,116,253	3,131,086	111,871	10,705	20,026,830	.....	.....	4,929	5,924	31,872
14 South Carolina, .....	694,398	963,162	3,794	1,374,662	49,064	63	14,967,474	2,713,428	29,729	.....	69,324	.....	.....	4,792	31,461	671
15 Georgia, .....	691,292	1,991,162	12,897	1,826,623	64,723	542	21,749,227	1,644,235	17,507	13	175,411	.....	.....	8,185	357,611	6,117
16 Alabama, .....	690,756	869,654	7,941	1,476,670	55,658	60	21,604,364	1,793,773	15,353	7	286,976	.....	.....	4,902	10,650	354
17 Mississippi, .....	375,651	309,091	1,784	697,235	11,978	69	6,985,724	1,700,461	604	21	156,307	.....	.....	138	127	17
18 Louisiana, .....	362,411	67	.....	109,425	1,897	.....	6,234,147	672,563	26,711	.....	129,517	.....	.....	581	88,189,315	2,911
19 Tennessee, .....	829,210	4,873,584	5,197	7,457,818	322,579	19,146	46,286,359	2,018,632	33,106	3,724	35,168,040	.....	.....	8,465	276,587	692
20 Kentucky, .....	779,828	4,096,113	16,860	6,825,974	1,652,108	9,669	40,787,120	1,279,619	90,360	8,827	86,678,674	.....	.....	3,405	1,409,172	2,261
21 Ohio, .....	1,819,467	17,979,647	245,905	15,995,112	654,191	666,541	35,482,161	6,004,183	1,112,651	9,584	6,486,164	.....	.....	6,278	7,109,423	11,122
22 Indiana, .....	686,866	8,282,864	33,618	6,606,086	162,026	66,371	33,195,108	1,830,562	9,110	2,375,368	.....	.....	.....	4,956	3,914,184	10,778
23 Illinois, .....	476,183	4,026,187	102,926	6,964,416	114,656	69,349	23,424,474	2,635,156	214,411	1,443	863,628	.....	.....	2,948	416,766	616
24 Missouri, .....	383,102	1,110,842	11,515	2,880,541	72,144	17,122	19,725,146	57,239	57,204	26,547	10,749,454	.....	.....	169	327,168	27
25 Arkansas, .....	97,574	3,132,030	260	236,941	7,772	110	6,039,450	367,010	695	1,545	185,548	.....	.....	171	2,147	.....
26 Michigan, .....	212,267	2,806,791	161,263	2,915,102	42,306	127,604	3,058,290	2,911,807	141,823	944	2,349	.....	.....	954	1,694,372	.....
27 Florida Ter., .....	84,477	624	80	13,861	320	.....	4,96,200	271,105	1,045	24	74,963	.....	.....	376	269,146	.....
28 Wisconsin Ter., .....	30,945	297,541	14,629	811,827	2,342	13,523	821,244	454,819	35,603	3	311	.....	.....	28	147,816	.....
29 Iowa Ter., .....	45,112	234,115	1,342	301,498	4,675	7,573	1,847,213	261,306	19,745	459	9,616	.....	.....	.....	51,425	.....
30 Dist. Columbia, .....	48,712	10,105	317	12,694	5,009	312	43,728	43,728	1,449	.....	59,578	.....	.....	916	.....	32
17,069,453 91,642,967 5,024,731 130,607,623 19,333,474 7,963,644 387,380,185 113,183,619 12,804,705 101,181 240,167,118 578,008,473 88,952,968 200,683 126,164,644 128,715																

TABLE II.—CENSUS STATISTICS OF VARIOUS ARTICLES FOR 1839, NOT EMBRACED IN TABLE I.

States, &c.	LIVE STOCK.							Value of the products of the dairy.	Value of the products of the orchard.	Value of home made or family goods.	GARDENS.		NURSERIES.		
	Pounds of wool.	Pounds of hops.	Pounds wax.	Horses & mules.	Neat cattle.	Sheep.	Swine.				Poultry of all kinds, estimated value.	Value of produce of market gardeners.	Value of produce of nurseries & florists.	No. of men employed.	Capital invested.
1 Maine, .....	1,465,531	36,940	3,793	59,208	327,255	649,364	117,386	\$123,171	\$1,496,902	\$149,384	\$804,397	\$51,579	\$460	689	\$84,774
2 New-Hampshire, .....	1,269,517	243,423	1,345	43,892	275,462	617,399	121,671	107,092	1,638,643	239,979	638,303	18,068	35	21	1,460
3 Massachusetts, .....	941,906	234,795	1,196	61,484	282,674	378,226	143,221	178,107	2,373,299	369,177	231,942	283,904	111,814	292	43,170
4 Rhode-Island, .....	183,830	113	165	8,034	36,891	90,146	30,659	61,702	223,229	32,098	51,180	67,741	12,604	207	240,274
5 Connecticut, .....	889,570	4,573	3,697	31,650	238,550	403,462	131,961	176,629	1,376,534	296,232	226,162	61,936	18,114	202	126,346
6 Vermont, .....	3,699,236	48,137	4,660	62,402	384,841	1,681,819	203,500	131,078	2,008,737	213,944	674,648	16,276	5,600	46	6,677
7 New-York, .....	9,846,295	447,260	52,795	474,543	1,911,244	5,118,777	1,900,065	1,153,413	10,496,021	1,701,933	4,636,547	409,126	78,890	625	288,558
8 New-Jersey, .....	397,207	4,531	10,061	70,502	220,202	219,285	261,443	336,933	1,328,032	464,006	201,625	249,613	26,167	1,233	125,116
9 Pennsylvania, .....	3,048,664	49,481	33,107	365,129	1,172,665	1,767,620	1,603,964	685,801	3,187,292	618,179	1,303,093	232,912	100,127	1,166	837,475
10 Delaware, .....	64,404	746	1,088	14,321	63,883	39,247	74,228	47,265	113,828	28,211	62,116	4,053	1,120	9	1,100
11 Maryland, .....	488,201	2,357	3,674	92,220	225,714	357,922	416,943	218,765	467,466	108,749	176,086	133,197	10,691	619	48,841
12 Virginia, .....	2,336,374	19,597	65,029	326,438	1,024,148	1,953,772	1,993,183	784,698	1,480,488	705,765	1,441,672	92,359	38,799	173	19,900
13 North Carolina, .....	628,044	1,063	118,923	166,608	617,371	438,279	1,649,716	644,125	674,349	356,006	1,413,242	25,475	48,581	20	4,663
14 South Carolina, .....	229,170	93	18,587	129,921	672,608	332,951	878,582	396,364	677,810	52,273	930,703	28,157	2,139	1,058	210,980
15 Georgia, .....	571,303	773	19,799	167,540	884,414	267,107	1,457,755	449,623	605,172	136,122	1,467,630	19,346	1,853	418	9,213
16 Alabama, .....	220,353	825	25,226	143,147	668,018	163,243	1,423,573	404,994	265,300	55,240	1,656,119	31,978	870	88	88,425
17 Mississippi, .....	175,196	164	6,836	109,227	623,197	128,367	1,001,209	369,482	309,555	14,458	682,946	42,896	409	66	43,060
18 Louisiana, .....	49,283	115	1,012	99,888	351,248	95,072	323,220	283,559	183,069	11,769	66,190	240,042	32,415	349	359,711
19 Tennessee, .....	1,060,332	830	50,907	341,409	822,551	741,593	2,926,607	606,969	472,141	367,108	2,886,661	19,812	71,100	34	10,760
20 Kentucky, .....	1,786,847	742	38,445	395,553	787,098	1,088,240	2,310,533	836,439	931,363	494,945	2,622,462	28,071	6,226	380	108,597
21 Ohio, .....	3,686,318	67,193	38,950	430,827	1,217,574	3,028,401	2,099,746	851,193	1,848,869	475,271	1,851,937	97,696	19,707	149	31,400
22 Indiana, .....	1,237,919	38,591	30,647	241,036	619,390	675,982	1,623,608	367,094	742,269	110,065	1,280,802	61,212	17,331	309	73,628
23 Illinois, .....	650,007	17,742	29,173	199,336	626,274	395,672	1,495,254	309,204	428,175	126,756	993,867	71,911	22,990	77	17,515
24 Missouri, .....	662,265	789	66,451	196,032	433,573	348,013	1,271,161	270,647	100,432	90,878	1,149,544	37,161	6,203	97	37,075
25 Arkansas, .....	64,943	7,079	41,472	188,786	42,151	393,058	109,468	109,468	89,205	10,680	489,750	2,736	418	8	6,036
26 Michigan, .....	133,375	11,381	4,533	30,144	185,190	99,618	295,890	82,730	301,032	16,073	113,955	4,051	6,307	87	24,273
27 Florida Ter., .....	7,285	.....	75	12,043	118,881	7,198	92,680	61,007	23,094	1,035	30,205	11,758	10	60	6,500
28 Wisconsin Ter., .....	6,777	133	1,474	5,755	30,269	3,462	51,383	16,167	35,677	37	12,467	3,106	1,025	89	58,616
29 Iowa Ter., .....	23,039	83	2,132	10,794	35,049	16,354	104,899	16,529	23,609	50	28,966	2,170	4,200	10	1,698
30 Dist. Columbia, .....	707	28	44	2,145	3,274	706	4,673	3,092	5,566	3,307	1,800	32,893	550	163	42,933
38,602,114 1,388,502 528,303 4,335,669 14,971,886 19,311,374 26,301,293 9,244,410 33,787,008 7,286,904 29,023,380 2,601,196 693,534 8,553 2,945,774															



stand in regard to each other. The government may spend years longer in tinkering the banks, or regulating the currency, but it will do no good. The evil lies deeper. The experience of all commercial and agricultural nations proves that no sound currency can be maintained, no continued prosperity enjoyed, where the principle of reciprocity is departed from in their intercourse. A glance at the duties imposed on our products by Great Britain will demonstrate that in all these cases she has approached the verge of prohibition; with the single exception of the article of cotton; and the reason of her forbearance in this respect is evident. Cotton she must have; and at present, she can only obtain it in sufficient quantities from the United States. Would she receive it at the present duty could she produce it in her own dominions? This is a serious question, and one which the course of events is rapidly bringing to its answer. The rapid increase of India cottons as shown by the imports into Great Britain from that country; the vigorous and determined efforts of the government to extend and perfect the cotton crop of that region; and the exultation of the British press at the evident success of these efforts, demonstrate what that answer will be, when the time arrives for its utterance.

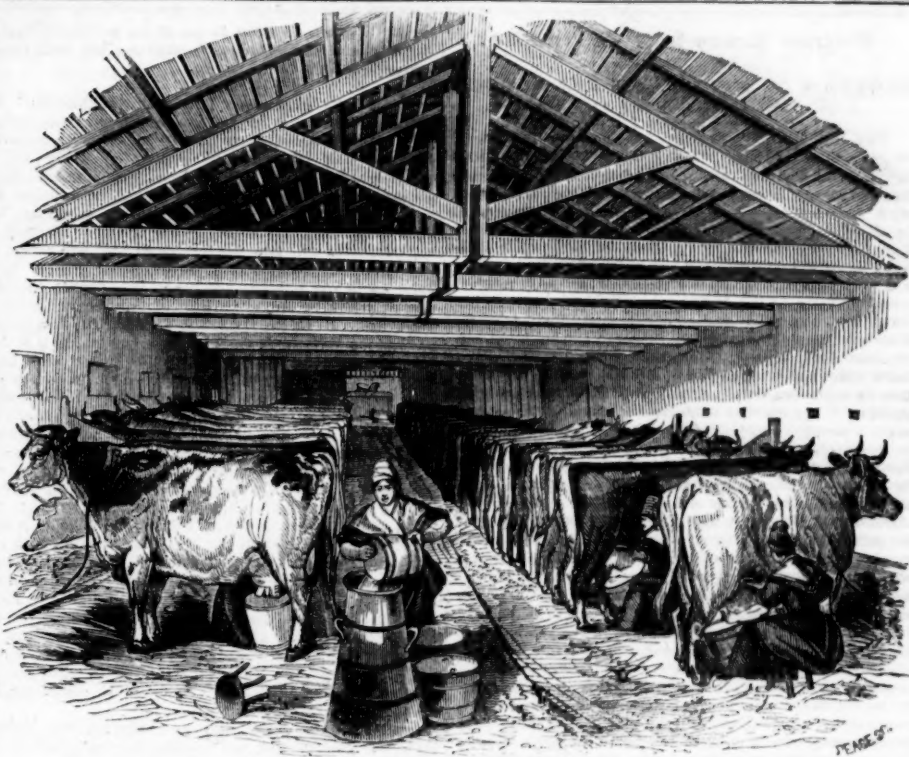
## MILK FOR CITIES.

THE engraving given with this article represents one of the milking or cow sheds attached to the great dairy establishment of Messrs. Laycock & Co. at Islington, near London. Here, within one building, are six ranges of sheds; and along both sides of every shed are stalls, each containing two cows, and each shed so arranged as to accommodate 64 cows. When the hour of milking arrives, the milk maids, which are generally from Wales, appear with handkerchiefs bound round their heads, each with her wooden pail so white and clean, that one almost doubts whether it ever could be dirty. She sits down on her stool, leans her head against the side of the animal, and milks until her pail be full, or until the cow has yielded her supply. The number of milkers is proportioned to the number of cows, so that the cows, from 500 to 700 in number, may all be milked in the course of an hour or an hour and a half. Each maid milks several cows; these being fastened in the stalls, and remaining quiet during the milking. The milk thus obtained, leaves the dairy for distribution almost immediately. In some cases women, provided with wooden yokes, carry away the milk in pails; in others, the milk is put into tall metallic vessels and taken away in carts. This milk goes to the retail dealers, who find a profit in disposing of it to their customers.

The quality of the milk supplied to families in cities varies a great deal, according to the source from which it is derived. From the great London dairies all the milk is sent out in a rich and pure state; for the retail dealers carry it away in their cans in the same state, and nearly as warm as when it leaves the cow. In many cases, private families are supplied directly from the dairies; and to these the milk is sent out in cans, locked by the clerk of the establishment, so that no adulteration can be effected. The milk also passes into the hands of the retail dealers perfectly pure. What is done with it afterwards, and to what degree it is lowered and sophisticated is, in the language of Mr. Youatt, known only to these milk merchants. It has been estimated that about 12,000 cows are necessary for the supply of London and its environs with milk; that the average daily quantity yielded by each cow is about nine quarts—making a total of 40 million quarts per annum. The value of the milk is estimated at from four and a half to five millions of dollars.

A London magazine pleasantly observes, that milk is one of the few articles of consumption almost invariably taken to the customer, and not sent for by the customer to the seller. The cry of "milk!" will never cease to be heard in our streets. There can be no reservoirs of milk; no pipes through which it can flow to the houses. The more extensive the metropolis, the greater the demand, and the more active the exertion required to supply it. The old cry was—"any milk here?" It then passed into—"milk maid's below!" Was then shortened into—"milk below!" and finally into—"mio!" which has been interpreted to mean *mi-eau*, (*demi-eau*), half water; a designation applicable to milk furnished other cities, as well as London.

The cows in these great dairies are frequently changed. Instead of keeping a cow as long as milk can be drawn from her, there is a minimum of supply, below which the cow is not deemed to yield what is required of her, or which is considered a fair return for her food. When this occurs, she is sent to another part of the establishment, where she is speedily fattened for the Smithfield butchers. In fattening, she is fed on grains, clover made into chaff, oil cake, and in some instances boiled linseed. Great dependance is placed on the oil cake, as it is found to possess a remarkable property of fattening cows in this situation. One of the great articles of food in these dairies is the grains or spent malt, resulting from the process of brewing. These are deposited in large brick vaults or pits, so as to secure a supply at all times. In these pits the grains are firmly trodden down, and when full, are covered with a thick layer of moist earth to keep out the rain and frost in winter. Thrown into these pits warm, and in a state of partial fermentation, there is, in the opinion of the dairymen, a further development of the saccharine and nutritive principle, and the grains are considered none the worse for being several years old. It is said by them that pits have been



LONDON MILKING SHED—(Fig. 45.)

opened after having been closed nine years, and the grains found perfectly good. The owner of the Laycock establishment has two or three extensive farms in the country, where the turneps, mangel wurtzel, hay, and other articles of cattle food, are grown for the use of the dairy.

The arrangements for supplying cities in this country with milk differ mainly in not being on so extensive a scale. Boston is probably the best supplied with milk of any of our cities. About 150,000 gallons are delivered annually by the rail-roads from milk establishments from ten to thirty miles from the city. On this subject, we give the following extract from Mr. Colman's 4th Report:

"I believe there is no city supplied with better milk, or in a more cleanly condition, than Boston. The milkmen are in general a respectable class of men, and pride themselves on supplying their customers with good milk; and the Bostonians are in general equally particular in requiring good milk for their money. Several of the milkmen who come daily to town are substantial farmers, who have attended the market for forty years. A milkman who, in his visits to the city, should be found taking improper liberties with any well or pump on the road, would soon be likely to have some inconvenient questions put to him as to the breed of his cows, and his manner of feeding them. In New-York city, it is not so. With the exception of a few milk establishments, where a sacred pledge of pure milk is given, a system of fraud is almost universally practiced. The milk is twice watered; first in the udder of the cow, who is fed upon distiller's swill, of which she has two or three barrels per day, with only hay enough to form a cud for rumination; and next, after it is drawn, it is a very general custom to add one quart of water to every four quarts of milk. It is not easy to prevent this; as, where the proprietor is himself honest, the carrier, who may be otherwise, may be tempted to increase the quantity, that he may appropriate to his own use the proceeds of the amount sold beyond that for which he has to account. In the arrangement at the celebrated Harleian dairy at Glasgow, Scotland, the most remarkable establishment of the kind ever known, the cans were so constructed and fastened with a lock, (the key of which was retained at home,) that there was no possibility of introducing anything into them after they were taken from the milk house; and there such various checks were applied that it could hardly be done without detection. Indeed, I have been led into the secret, at New-York, of the actual manufacture of milk at a grocery store, where hardly real milk enough was used to 'swear by;' and this compound was sold to the poor and the miserable for three cents a quart. The grocer, though he kept no cow, offered to supply the milkman with what he required, whenever his quantity was insufficient to meet the demands of the day. There is no such thing to be had in Boston, within my knowledge, as distiller's swill, the refuse grain after the whiskey has been extracted from it; but some use is made of brewer's grains, or the malted barley when they can be had. These increase the quantity of the milk, but injure the quality." \* \* \* "The best milkmen prefer good clover hay for cows in milk to any other feed. Potatoes and mangel wurtzel increase the quantity, without improving the quality of the milk. Carrots, parsneps, and sugar beets improve the quality of the milk." Mr.

Colman says the ruta бага and all the turnep family give a bad flavor to milk; but adds, that a milkman of his acquaintance assures him, no inconvenience results from their use, if given to the cows directly after, and not before being milked. In this case, the turnep flavor and odor is lost before the next milking.

The quantity of milk given annually by cows varies much in different establishments; at least, the quantity reported differs materially. We have seen that the cows of the London dairies are estimated to produce 9 quarts daily; which it is believed is a greater average than most of our dairies would show. This is probable, when we remember that no inferior cows are kept in those establishments; and when they sink below a given rate, the cows are turned off at once. In a number of instances referred to by Mr. Colman, the products of dairies from good native cows averaged per annum from 5 to 7 quarts daily. The dairy and milk business is daily becoming more important in this country. Men are prone to leave the healthful air and employments of the country to congregate in cities; and the furnishing them with the products of the dairy—milk, butter, and cheese, will always constitute an important item in the records of agricultural industry.

## COUNTY AGRICULTURAL SOCIETIES.

CORTLAND.—We have received the circular of the Board of Managers of the Ag. Society of this county, containing the list of premiums which is to be awarded at their next Fair, to be held at Homer on the first Wednesday of October next. The premiums, though small, are numerous and appropriate; and the requirements and regulations are the best drawn up of any that we have yet seen. There is another feature in the management of this society, which is worthy of imitation by all the other societies in the state. Twenty-two "Experimental Committees," consisting of three members each, have been appointed, who are "expected, as far as the nature of the case will admit of, to institute accurate and well conducted experiments on the subjects committed to them," and to report the results at the annual meeting of the society in Jan. next. If these committees perform the duties assigned them faithfully, the society will obtain a mass of facts which will be of essential service to the cause of agriculture. The officers of the society for this year consist of Dan Hibbard, Pres't—Jos. Reynolds, David Mathews, Charles McKnight, and Hammon Short, V. Pres'ts—Rufus Boies, Treas.—Amos Rice, Homer, Sec'y—Paris Barber, Marshall, and an Ex. Committee of 16.

OSWEGO.—At the late meeting of this Society, an Address was delivered by the President, and the following officers elected:—Orville Robinson, Mexico, Pres't—D. F. Herrick, Oswego, and Samuel Allen, Jr., New-Haven, V. Pres'ts—Geo. Seeley, Oswego, Treas.—C. Ames, Scriba, Rec., and S. Y. Baldwin, Oswego, Cor. Sec'y. Their next fair is to be held in Mexico.

OTSEGO.—Officers for 1842:—Elisha Doubleday, Pres't—John W. Tunnicliff, Wm. A. Walker, Halsey Spencer, V. Pres'ts—Henry Phinney, Treas.—Cha's McLean, Sec'y.

CLINTON.—Officers for 1842:—Z. C. Platt, Pres't—Willets Keese, Edwin Benedict, John North, R. O. Barber, V. Pres'ts—B. S. Roberts, Rec., and Jacob H. Holt, Cor. Sec'y—Moss K. Platt, Treas.



## Original Papers from Contributors.

## COMMENTS ON THE JAN. AND FEB. NUMBERS OF THE CULTIVATOR FOR 1842.

THE Jan. No. of your paper has so large a portion of it devoted to the description of the meetings of various agricultural societies, and these have been so numerous beyond all former example—so well conducted, and with such increasing spirit, as to afford great encouragement to all similar associations in their patriotic labors. What they have done and are doing, affords the best possible answer to all the carpings and cavilings of their enemies; and will perfectly satisfy the minds of all such rational men, (if there be any such,) as might have doubted, before they witnessed any of their operations, whether they would work beneficially or not. I must, however, say that most, if not all of their constitutions which I have examined with any care, appear to me to be defective in some respects. Although I have long had this opinion of agricultural societies in general, it has lately made a stronger impression on my mind than heretofore, in consequence of my reading recently the Dec. number of that valuable periodical—the *Farmer's Register*, by Edmund Ruffin of Petersburg, Va. It contains what the author calls—"Plan and Constitution of a Working Agricultural Society;" which Plan, or something on similar principles, would, in my humble opinion, soon make every agricultural society that adopted it what all such associations ought to be; that is—collectors and distributors of all facts which can contribute to the improvement of American husbandry.

The particular feature of this Plan, which renders it so highly worthy of general adoption is, that the Constitution requires each member who is a cultivator of land, annually to make as accurately as he can, and minutely to report the results thereof in writing, as simply and concisely as may be, to his own society,—at least three experiments, with a view to determine the same number of disputed questions in husbandry. The choice of these questions he may make himself; or he may choose three of such as the executive committee are required to prepare and recommend for trial. A fine of one dollar is imposed for each experiment that he fails to make; but one-half of the whole funds of the society is appropriated to premiums, to be awarded to such of those experiments as shall be deemed best and most carefully conducted. Another excellent constitutional regulation is, that the society shall co-operate with each and every other society having similar objects and general action, for the purpose of better forwarding their common design of inducing accurate investigation, eliciting useful facts, and exchanging and diffusing the knowledge thus acquired. This, indeed, would well deserve the title of "*A Working Agricultural Society*;" and could it once be tried, I hazard little in saying that such an excellent example would soon be universally followed.

PERMIT me now to offer a few words on your article, headed "Pearl" and "Commentator." I assure your worthy correspondent that my observations on his former communication would have been entirely different in character had I supposed, even for a moment, that they would hurt his feelings in the slightest degree. I protest that I had no intention of the kind; but expected merely to draw towards a dry subject—as most agricultural matters are generally considered—somewhat more attention than it would otherwise receive. If in so doing I have excited any disagreeable feelings in him, I sincerely regret it; and, by way of atonement, would willingly and silently submit to any retaliation he might choose to make through your paper. But it seems that his charity and good humor have prepared for me a very different kind of "*drubbing*," which I will most joyfully receive, should I ever be so fortunate as to meet with him in his own state.

One word about "*Moisture Rising*." If "Pearl" will take the trouble to invert a glass tumbler on the hardest path, in the hottest and driest weather, and draw some loose earth around the bottom, so as to exclude the air entirely, he will soon see moisture collected on the inside of the glass. This will convince him that it *does* rise.

ALTHOUGH I shall probably be "running against a snag," (as they vulgarly say,) to utter a word which even squints at finding fault with the "*Dictionary of Terms used in Agriculture and its kindred Sciences*," I must risk an objection to at least one of the author's definitions, or rather explanations, in this number of your paper. But I will first state a general rule, to the truth and propriety of which I presume the learned and intelligent author himself will agree. In explaining any word or term, no words or terms should be used that are less intelligible than that which is to be explained. Provincialisms, therefore, should always be excluded from explanations; for they themselves are the terms which most require to be rendered intelligible to the generality of readers. Yet the author of the *Dictionary of Terms* has used two in his explanation of the word "*Hoove*," or "*Hoven*," the meaning of which is as utterly unknown to a vast majority of the planters and farmers of the United States as if they were Hebrew or Sanscrit. Those words are—"roven or fog." I myself had to make a long search for them, but without success, until I happened to think of Marshall's *Rural Economy* of certain counties in England; and there I luckily found

\* Commentator could have found both these words in Webster's *Dictionary*—Eus.

them. He states the first as one of the provincialisms of Norfolk, and the second of Yorkshire; but both meaning—"after-grass."

YOUR intelligent correspondent, "Richmond," has stated a single fact in his interesting communication, upon which I will venture to offer a few brief remarks. He says—"Of late years, the cultivators of the soil in the neighborhood of New-York city use the unleached ashes, applying about a gill to a hill of corn before the first hoeing." Now that this practice is wrong, has been demonstrated, I think, to the entire satisfaction of any man who will take the trouble to read and reflect on the numerous comparative experiments which have been made and published between this partial application of ashes, or any other kind of manure, and using it broadcast. What has led to the error is, that it certainly hastens the early growth of any plant to which it is thus partially applied; but it is because the young roots have not yet shot forth beyond its reach. As soon as they do, and fail to receive this additional supply of nutriment, they suffer more for the want of it than they otherwise would do. It is like putting a man on half allowance after having fed him, for some time, fully and luxuriantly. The similitude holds good, particularly in regard to Indian corn, whose roots, as every corn-grower knows, soon extend several feet horizontally from the stalk, and in every direction around it. Now it is also generally known that all the nutriment which plants derive from the earth is first absorbed by little vessels, called "spongioles," at the very extremities of their roots, and thence conveyed to them through the main stems of the roots themselves. No manure, therefore, applied immediately around their stems or stalks, can be imparted to them where there are very few or no spongioles to absorb it. This is true of Indian corn; and all other plants that extend their roots to such considerable distances.

COMMENTATOR begs leave to return his very sincere thanks to your worthy and talented correspondent L. A. Morrell, Esq., for the high estimate he has been pleased to make of Commentator's communications; and regrets much that he cannot give his real name consistently with his objects in taking upon himself the office of a Reviewer. Mr. Morrell will probably agree with him, if he will duly reflect on the following suggestion. Criticism, to be useful, should always come from some unknown author; since then only can it be tried on its own merits. Once let his name be made public, and his readers forthwith begin to try him, instead of trying the subject upon which he writes; and their merits or demerits become quite secondary objects, if indeed they are not entirely overlooked. This is the sole reason why Commentator has assumed, and intends to continue his present signature.

YOUR humorous and very entertaining, as well as instructive correspondent, "A. of the North," has given us quite an amusing thing in his "*Agricultural Thermometer*;" but in the hands of one whose good nature and kindness of disposition incline him so much more to praise than to blame, I fear he will not make it so generally useful to his brother farmers as if he would occasionally pour into the tube of his implement a few drops of tincture of quassia, and extract of capsicum.

IN the description of Mr. Stone's stables by Mr. L. Durand, there is one thing which I have always heard objected to by those best acquainted with the management of horses; it is to such a descent to the stable floors. Two or three inches are deemed too much, as the horses stand thereon in an unnatural position, as it were up hill; and such descent is greater than necessary to drain off the manure.

UNDER the head of "Plowing at Syracuse," there are some very sensible remarks by some person who signs himself a "Friend to Agriculture." It would seem by what he says of the plowing match on that occasion, as if *speed* had been more regarded than any of the other matters which were there required to constitute good plowing, although it surely ought to be ranked last. This misjudging in regard to the essentials of good plowing is a too common fault, and ought to be corrected, or the chief advantage of such competitions will be lost.

I omitted to notice in its proper place Col. Wade Hampton's recommendation to the South Carolina State Society of what he calls "*Musquite Grass*," which he says is a native of Texas, although the seed that produced his was sent to him by a Mr. Carter of Alabama, who speaks very highly of it. Col. Hampton also gives it a high character. I will therefore take the liberty of suggesting to both these gentlemen, (should they ever see this article,) that many of their brother farmers, farther north, would probably thank them if they would send a bushel or two of the seed to that very zealous friend of agriculture, H. L. Ellsworth, commissioner of patents, for distribution. This would be the most effectual way of having the grass extensively tried.

THE first article which engaged my attention in your February number was the interesting account of the annual meeting of your State Agricultural Society. The members are pursuing the true course to render this institution universally popular; and that is to procure the attendance of as many as practicable of the public functionaries of the state, and of gentlemen otherwise distinguished. When such men appear to take an active inter-

est in these exhibitions, their example will always have a powerful influence on the general mass of our population. Indeed, if our public men generally, and the more wealthy and better educated portion of our citizens, could only be made aware of the great good they could accomplish merely by their attendance on such occasions, but especially by zealous co-operation, we should surely find many more of them than we do, among the leaders of every voluntary association, however humble, the object of which was to promote the general welfare; and such, in a pre-eminent degree, are all agricultural societies. May the amplest success attend them all.

THE letter from London, of your correspondent T. C. Peters, is, upon the whole, so flattering to our national vanity, that I am sorry to differ from him in any respect. But there are two or three of his opinions which seem to me erroneous; although some perhaps may deem me presumptuous in thus expressing myself. For instance, he says—"As an agricultural people, we are not 30 years behind the people here." Now, although this may possibly be true of some small portions of the northern and eastern states, it will require a most extravagant degree of credulity to believe that 30, or even 90 years could bring the agriculture of a large majority of the United States to a par with that of England, which Mr. Peters himself says is "*but an enlarged system of gardening*." Two things must happen before such equality could be—even possible. The population of these states, (very large portions of which are yet wildernesses,) must be as dense as that of England, and labor as cheap.

Again, he says—"At some time, I make no doubt, hedges will become necessary with us," &c. This may happen around our large towns and cities, after the adjacent farms have been reduced to their smallest dimensions, so that their enclosures may be permanent. But the law of descents in all our states, and the practice now almost universal, of continually dividing and subdividing landed estates among the children of our families, which produces frequent corresponding changes of the enclosures, must forever render hedges unsuitable as a general system of fencing, unless indeed, these laws and practices should be changed; of which there seems to be not the most distant probability. But even if these two causes were removed, there are other obstacles in the way that appear to be very hard to overcome. In the first place, no hedge plant yet tried among us has succeeded perfectly anywhere; at least, I have neither seen nor heard of it. On the contrary, I have witnessed many trials, in about the latitude 38, of all the varieties of thorn—both imported and native—of the cedar, the non-descript rose of South Carolina, and the honey-locust, or *gleditsia triacanthos*. All have failed with us, either from incurable diseases that kill the plants, which is the case here with the thorns and the cedar, or from unsuitability to the climate, which is the objection to the non-descript rose, or from being altogether unfit for hedging, as the honey locust has been found to be. This latter plant, was tried many years ago, as far north as Long-Island, by that distinguished gentleman, Rufus King, who told me that he had failed to make a good hedge of it. As to the thorns, they have been tried, I believe, more extensively in Delaware than in any other state. Yet, even there, a very intelligent and highly respectable farmer lately informed me that many of the farmers are cutting them down, and substituting moveable wood fences. The cedar is the least suitable of all; for it is subject to more diseases. In the second and last place, hedges are a much more expensive kind of fence than any fence of wood, where suitable timber can be procured at any price yet generally given for it. Of this fact, any reasonable man may satisfy himself who will take the trouble to make the calculation fairly and accurately. For instance, let him estimate the expense of the following indispensable prerequisites in making a hedge. First, the preparation of the ground; the purchase and setting of the plants; the making and keeping up of a protective wood fence for five or six years, since it takes that time to make a hedge effective against stock, even when the plants live; the annual culture of the ground for at least three or four of the first years; and the yearly pruning of the hedge forever thereafter. Then let him calculate the entire cost of a moveable wood fence, which I know from my own experience will last without repair for at least 17 or 18 years, if made of suitable kinds of timber; and if he does not deem the latter preferable on every account, I will agree that I know nothing about the matter.

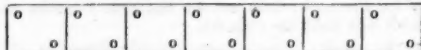
THE discontinuance of the agricultural survey of Massachusetts has surprised me more than any legislative act,—strange—most strange, as several of them have been in other states,—which has been passed in these topsyturvy times. It surely could not have proceeded from any objection to the reports of the Rev. Mr. Colman; for they have been highly approved in other portions of our country. What then can it be? Has Brother Jonathan—the man heretofore famed, not only at home but abroad, for his public spirit—his "*go-ahead*," undaunted perseverance in all works of public utility—evaporated? Has he, too,—like the rest of us—become "*weary in well doing*?" Alas! for our country, when such backslidings are taking place—even in yankee land!

UNDER the head of "Agricultural Journals, &c." you have enumerated so many as to excite a strong desire to know how many we now have in the United States. Such a catalogue would form an interesting item in our



agricultural statistics; and would serve, in a great degree, to show at least the extent of our desire for information on all the different branches of husbandry, if it did not also afford a tolerably fair measure of the amount of our knowledge, and progress therein, since the publication of the American Farmer by Mr. J. S. Skinner, of Baltimore, in 1820. This, I believe, was the first paper of the kind published in the United States; and our subsequent improvement in agriculture has been greater, I am very confident, within this period of 22 years, than it was during the whole of the previous half century. Such has been the happy influence of that, and other agricultural papers since established, in stimulating the dormant spirit of husbandry in our country. Well, then, do these journals deserve the most liberal patronage that the whole body of our yeomanry can give them. That every farmer who could read, should not take at least one, has always been a matter of surprise to me, especially when all who do take such papers unite in testifying to their great value. Indeed, I have heard many, very many say that a single paper often repaid them amply for the whole of their annual subscription.

YOUR second query, under the head of "Culture of the Grasses," is—"Method of Seeding." This induces me to recommend the most simple and cheapest of all the contrivances I have ever seen or used for the regular, equal distribution of any kind of grass seed that will readily pass through a small hole. The subjoined sketch is a bird's eye view of it.



These lines represent a box about 8 feet long, 4 inches wide, and 4 inches deep, divided into seven compartments. Each of these has two holes bored through their bottoms in their diagonal corners. These holes are three-fourths of an inch in diameter, and have pasted over them strong pieces of paper, through each of which a hole is perforated large enough for the grass seed to pass readily through them. The whole box is made of very thin, light plank, say about three-eighths of an inch thick. Two straps are nailed to the sides, at a convenient distance from the ends, for the sower to hold by. He then passes a strap over one shoulder and under the middle of the box, which relieves his arms from the weight, and proceeds to sow by swinging the box to the right and left as he walks along at a suitable pace for the operation. No hand machine, even if fifty times the cost, could well sow either faster or with more regularity.

DR. HERMAN WENDELL's liberal offer to present some of the new variety of Irish potatoe, called Kelseyan or perfectionists, to any gentleman who might wish to make trial of them, contrasts most honorably to himself, with the shameful and extortionate demands of all those individuals who—after puffing, in the most extravagant terms, any new thing which they may happen to possess—puffing it, too, until they believe that they have worked up the public credulity to the point of buying some of the marvellous and most precious article, at any price, rather than miss; then come out with a modest proposal to spare a small quantity—a very little of it, at the moderate and very reasonable profit of some 500 or 1000 per cent.

THE article headed "New Manures," reminds me of the old adage—"Wonders will never cease." What, though it may seem reasonable that the wondering propensities of mankind should diminish as the world grows older and gains more experience, yet the numerous marvels with which almost every day presents us, and the avidity with which so many of them are swallowed, would seem to contradict the supposition. Witness Mr. Bommer's "New Method of Making Vegetable Manures by Fermentation," secured by a patent, as all these wondrous discoveries are sure to be. I will not undertake to condemn it before I know what it is; but will only, most respectfully, suggest the following caution. Let us never believe that a patent for anything is conclusive evidence of its merit; for many almost worthless things are imposed on the public under that sanction. Again; let our precaution in buying be always proportioned to the degree to which the properties attributed to the patented article contradict our own experience and belief. Still, our scepticism should never be suffered so far to influence us in regard to new discoveries, however extraordinary they may seem, as to prevent us from attempting as thorough an examination of them as we are capable of making.

UNDER the head of "Work for the Month," you say—"the most certain way of securing good fruit is by grafting; and the latter part of this month, (February,) is an excellent time to select and cut cions." The most experienced orchardists say—and my own experience confirms it—that grafting is best for seed fruit, such as apples, pears, quinces, &c.; but that inoeculating is preferable for stone fruit, such as cherries, peaches, apricots, &c. As for the best time for cutting cions to graft with, the latter part of February is rather too late for latitude 38, and farther south.

YOUR remarks on the Agricultural Society of the United States are very judicious; and I sincerely hope that the Board of Control will ponder them well. Although I agree with you perfectly in wishing them to be "workers rather than talkers," I should wish them to do, at least a little at talking also; for in our country, where the government itself is acknowledged, on all hands, to be a

logocracy, there is no getting along with any public institution, even of a voluntary kind, unless the agents are allowed to speechify it, not only a little, but on all imaginable subjects whatever. With us, if in any nation under the sun, "words are things."

I have read Mr. Alexander Bickett's letter with much attention, and confess that his comments upon Mr. A. B. Allen's assertion—that "we can make Ayrshires by the thousand here, by crossing our Durham bulls on our best native stock," appear to me to be perfectly just; although some perhaps may deem them rather more bitter than they need to have been. But be it remembered that this gentleman went to England, as it was generally understood, for the express purpose of improving our breeds of cattle in general, and not solely to improve any particular breed; in other words, to select the best he could find, be the breed what it might. Of course, all our cattle breeders, among whom he ranked as an excellent judge, were led to suppose that they might safely confide in his opinions as one who had no prejudices in favor of any particular breed to blind his judgment in making his selections from all others. The assertion, however, quoted by Mr. Bickett, in regard to the Ayrshire cattle, which the English and Scotch books describe as being a distinct breed, and quite as much so as any other, indicates in Mr. Allen—not only precipitancy in forming his opinion, but so great a prejudice against the Ayrshires, as to disqualify him for acting the part of a dispassionate, fair judge. It indicates, I think, something more; and that is, a strong partiality for the Durham Short Horns, of whose merits it is not my present purpose to say anything. This partiality, if I remember right, is not a feeling of very recent origin; that is, if Mr. A. B. Allen be the same gentleman who formerly spoke with so much asperity of an opinion which the Rev. Mr. Henry Colman happened to express in favor of some of the native cows of Massachusetts compared with Mr. A.'s favorite Durham breed.\*

Let none conclude, from any of the foregoing remarks, that I am at all opposed to improving our native cattle by importing foreign stock. Far from it. But I must contend, however unpopular it may be, that the very large investments therein, which many of our farmers have been making, and at such enormous prices, cannot be justified by any calculations of profit and loss which prudent men are accustomed to make. It is true, that while the fashion lasts, the few will profit most marvelously, but the many must inevitably lose; as was the case during the prevalence of the merino fever, and the multicaulis mania. These moral epidemics inculcated lessons of such signal severity, as most persons would think might have sufficed for at least one generation to come. But it really seems as if we, the good people of these United States, can no more live without hobbies and humbugs of some kind or other, than we can breathe without vital air.

THE facts which you have stated in regard to the agriculture of Vermont ought to satisfy all farmers who own worn out soils, or such as are naturally poor, that they should never despair of rendering them very productive by industry, economy, and labor judiciously exerted in manuring and cultivating them; since the soil and climate of that state are as little favorable, generally speaking, to agriculture as those of any state in the Union. Much praise, therefore, is due to the Vermontese for the lead which they have taken in husbandry. It ought greatly to check, if anything can, the desertion of the Atlantic states for the "Far West." The emigration from foreign countries will fill up the new states fast enough, without depopulating the old ones for that purpose.

THE interesting letter of Mr. Solon Robinson—that true and intelligent friend of American husbandry—contains a statement in regard to peach trees from which I beg leave to dissent. In speaking of Dr. Thompson's orchard in Delaware, he says—"While viewing his peach orchard, I learned a fact well worth the attention of all peach growers. Let the trees branch as much as possible from the ground, and never cut off a limb that is broken down by an overgrowth of fruit. If it hangs on by wood enough to keep it alive, let it lay, and it will sprout up next year most luxuriantly, and then produce the finest kind of peaches." Such treatment in that climate may answer very well, for ought I can say to the contrary. But long observation and experience justify me in asserting, that in all parts of the United States with which I am acquainted, the best peaches will always be produced by trees that are judiciously pruned, and their limbs kept from breaking by forks placed under them, if loaded with fruit. That such broken limbs as Mr. R. speaks of will throw out sprouts which will produce fruit, and that unpruned trees will do the same, is certain. But it is equally certain that the fruit will neither be so large nor so highly flavored as that produced by pruned trees, in any situation wherein I have had an opportunity of comparing them. Another objection to unpruned trees is, that they cannot be cultivated near their bodies, on account of the numerous limbs which grow next the ground, although this culture is necessary—at least until the trees are in full bearing. Where peaches become a staple crop, and quantity rather than quality is the chief object in view, then perhaps it might be found most profitable to neglect pruning altogether; but I should doubt it even then.

MR. C. N. BEMENT's account of the sale of Col. Jacques "Cream Pot Cattle," suggests the following query:

\* It was Mr. L. F. Allen who replied to Mr. Colman.—Ede.

ries: Does not Mr. B.'s letter savor a little of exultation at the failure? Is he not a breeder of Short Horn Durhams for sale? Are not all importers and breeders of foreign cattle for sale, deeply interested in discrediting domestic breeds? If they are, will they not, even unconsciously to themselves, endeavor to do so whenever an opportunity occurs? As old Stapleton in Jacob Faithful would say—"this is human nature."

COMMENTATOR.

#### LETTER TO SAMUEL A. MILLER.

Book knowledge useful in agriculture—Early experiment with plaster—Curing pork without salt—Fixed attention necessary in farming—Anecdote.

OAKLAND FARM, SOUTHFIELD, Staten-Island, (N. Y.), March 12, 1842. }  
Mr. Samuel A. Miller, Shawangunk, Ulster Co.

DEAR SIR—I rejoice to hear that you are earnestly engaged in agricultural pursuits, which I hope will promote your health and happiness as much as they have mine. Having been sometime on a farm with your uncle, you will not be so great a novice as I was when leaving professional pursuits to cultivate the soil. Apprehensive that my want of information would be detrimental, I endeavored to supply my deficiencies by reading, combined with practice, and I am satisfied that much useful information has been obtained from the writings of Kirwan on Manures, Chaptal, Davy, Loudon, and a recent German author of the name of Liebig, as well as others.

Scientific works on agriculture are generally too abstruse for farmers, and so technical as to be obscure to common readers. A friend of mine, residing on this island, procured a copy of Liebig's organic chemistry of agriculture, and derived no benefit from it, because, as he said, it was all Greek to him. And yet that publication contains the elements and science of practical agriculture; but it is a profound work, and requires study. There is, however, a valuable periodical published at Albany, in this state, containing practical information which all can understand, combined with as much explanatory science as to make it useful and agreeable to all who attend to "seed time and harvest." This work is entitled the "CULTIVATOR," and I advise you, by all means, to take and read it. I procured all the back volumes and perused them with attention and profit. Like a dictionary, they are constant sources of reference. Be not deterred by the title of "book farmer," which may be applied to you by some of your neighbors, who never look into a periodical or other book to add to the knowledge they possess of the art or employment they follow. Whence was it, but from books and scientific men, that a knowledge of the fertilizing effects of plaster of Paris was obtained?

Your grandfather was among the first to introduce it into Ulster county, and the first experiment was made on the farm whereon you reside. When the powdered plaster was shown to him, he found neither smell nor taste in it, and expressed his doubts as to its utility; observing that it would do no more good as a manure than so much dry saw dust. In the course of the ensuing summer, however, his attention was repeatedly attracted to a spot on the easterly side of the long and beautiful meadow in front of the old stone house where you now reside. This spot was uncommonly luxuriant, and the grass of a much better color, than in the other parts of the field. The old man could not account for it, and he pointed it out to all his visitors. When the proper time had arrived to explain the mystery, (which was an experiment made unknown to him,) your father and uncle invited your grandfather and several of his visitors to go into the field and examine the spot more particularly; when behold! they could trace the name of ANANIAS MILLER, in large letters, and the date of the experiment, made by a growth of grass much more luxuriant than the surrounding vegetation!! This, said your uncle, is the effect of plaster. Early in March last, I traced my father's name on the sod with that article, and the result is before you. This experiment convinced your grandfather of the efficacy of gypsum or plaster of Paris, and he thence employed it as a fertilizer, and continued its use as long as he lived. As he was an industrious, prudent and thriving agriculturist, his neighbors gradually followed his example; and now, even those who are not "book farmers," in your part of the country, cannot do without it.

When your grandfather removed from Suffolk county on Long-Island to the valley of the Wallkill, some of the neighboring farmers could not cure their pork to keep through the summer, and were astonished at Mr. Miller's success in effecting so desirable an object. Some attributed their inability to preserve their meat to bad salt, and some to witchcraft. They were accordingly led to inquire into his process, and ascertained that there was no difficulty, no secret, no witchcraft; and provided they put enough salt on their meat it would keep. But one, and another, objected to wasting so much salt, and several years elapsed before some of them would adopt your grandfather's plan—still preferring to lose their provisions, rather than to waste so much salt. In the "Cultivator," you will find practical as well as theoretical information on curing beef and pork, as well as on almost every other subject connected with agriculture. But there is no recipe for curing provisions without salt.

I will mention another incident connected with the house and farm you occupy. Your Aunt Tempe has been noted, as long as I recollect, for making the best butter in that part of the country; and the first dairy sent



from New-Hurley to the city of New-York by way of Newburgh, was made under her directions and supervision in your grandfather's old stone house. Since my first visit there, forty years have nearly elapsed, and I well remember what delightful butter your aunt then made; and I ascertained that she used clean coarse salt, reduced to powder by some of the family, and her butter was sweet and good, and would keep without spoiling, while others in that part of the valley of the Wallkill used fine Liverpool salt which, from its impurities, caused the butter made with it to become strong or rancid in a short time.

Some of our friends in the city of New-York think that our occupation requires no attention in winter, and that we might spend our time more profitably and agreeably in the great emporium. But farming, like every other useful employment, has its cares and its duties to be attended to in the winter as in the growing season. A well established maxim, says—"that which is worth doing, is worth doing well." If a farmer does not attend to his calling at all seasons, something will be neglected and losses sustained. He must in fact have his attention constantly directed and fixed upon the object in view. Let me illustrate this by an anecdote.

When a boy, I went in a small boat, on a fishing excursion, in the neighborhood of New-York, with an old gentleman who was extravagantly fond of the sport, and who frequently enjoyed it. We left the city with the early flood-tide, first dropping anchor on Shell Reef, then off Williamsburg, Grassy Point, and in succession the rocky shores about Hurlgate; at all which places he drew up the fishes with great glee, telling me what they were as soon as hooked, and before seeing them. Here comes, said he, a Sea Bass—then a Black Fish—then, perhaps, an eel, &c. It was astonishing to me that he knew every fish by its manner of taking the bait, and would hook them so readily, while I could not take a single one. My attention was directed to him and his line and not to my own; and when he saw me listless and discouraged, hanging over the side of the boat, he cried out—"My boy, you must put your attention upon the point of the hook, and then you'll catch fish." This remark has been practically useful at subsequent periods of my life, and is applicable to all pursuits which require attention to make them prosper. So with the farmer; if his attention be not constantly directed to the main object, if he be diverted from the "point of the hook," he must suffer by neglect; he cannot catch fish; he cannot thrive.

Hereafter I may give you an abstract of Liebig's work, which will save you some trouble in reading much of it you would not understand.

RICHMOND.

#### RUST ON WHEAT—CLOVER SEED.

MR. CULTIVATOR—The volume of the Cultivator for last year has arrived, and I am now reading it with much satisfaction, and I hope profit. In the May number I noticed an inquiry of "A Subscriber," whether plaster sown upon wheat in the spring does not have a tendency to make the wheat rust? In your reply to the query, you state it as your opinion that it does not. From observations made by myself the last three years in regard to this question, I have formed an opinion directly opposite to that of your own. I shall not undertake to say that plaster sown upon wheat will make the wheat rust in a good season; but I do believe that it will predispose the wheat to rust; and in seasons when rust prevails, those fields which have been plastered will be found rusted sooner than those not plastered, and in a much greater degree. As to the cause, my opinion is, that it may be ascribed principally to the accelerated growth given to the wheat by the plaster. One case, among others, which came under my observation I will state to you; and as your columns are crowded, I will be as brief as possible. In the year 1839, two fields of wheat were growing adjoining to each other, or separated only by a road four rods wide. The soil of each was the same; both were fallowed the previous season; one was sown on the 8th, the other the 9th of September; both same kind of wheat; and as similar in every respect as two fields could well be. In the spring one field was plastered liberally; the other not plastered. At harvest, the wheat which had been plastered was badly rusted—so much so, that the grain was not merchantable; while the unplastered wheat had a bright straw, fine, large, plump berry, and averaged thirty-three bushels per acre. True, the clover crop was a total failure in consequence of not plastering, but the crop of wheat more than made up the loss.

That season, it will be recollected, rust was very prevalent throughout Western New-York. In our town, but little wheat came in plump; and as far as my observations extended, such as did, proved to be—upon inquiry—from fields which had not been plastered. Your correspondent—"A Subscriber," asks what plan shall then be adopted to secure a good crop of clover? I will inform him of one which I have adopted, and he may do the same if he chooses; that plan is, to apply the plaster to the clover seed before it is sown. I have tried it, and the result was satisfactory. I prepared my clover seed by soaking it twelve hours in brine, and then rolling or stirring it with dry plaster until every grain is completely coated, when it was immediately sown. I believe that five pounds of seed prepared in this way will seed an acre as well as ten pounds sown dry. Try it, Mr. "Subscriber," and publish the result in the Cultivator.

J. HORSFIELD.

Castile, N. Y., Feb. 1, 1842.

#### LETTERS FROM MR. PETERS—No. III.

London, Jan. 6, 1842.

MESSRS. GAYLORD & TUCKER—I hope you will not find my letters entirely uninteresting, if I do not give you an account of the tower ruins, or the thousand other sights which interest all who visit this great city. I have seen a few of the sights, and but a few. One day I clambered up to the top of the monument, and looked down upon the small portion of the city which was visible through the dark cloud that seems to envelop it at this season of the year.

I must plead guilty to the unsentimental. I was more pleased and interested in the cattle market, the corn exchange, and the provision and custom house ware houses, on the banks of the Thames, than among the time honored monuments which have clustered around them—the cherished memories of a thousand years. My mind has been entirely engrossed with the useful present. The mighty dead, the renowned living, the pomp and circumstance of royalty, and its splendid train of glittering nobility, have had no charms for me. I have turned away from the magnificent palace to look at the contents of the humble farm yard, and have had quite as much pleasure in looking at the beautiful cattle and sheep, and the farmer's improvements, as in rambling through the castle, and gazing at the rarest pictures of the old masters, any one of which would be a fortune to the owner. Think of \$50,000 being refused for a piece of painted canvass, half as large as a barn door.

The only people I have seen here whose possessions I coveted, were those gentlemen who own the fine herds of thorough bred cattle, particularly the Durhams and Herefords, which are now considered the best breeds in this country.

Owing to misinformation, I did not get up to the city in time to attend the Smithfield cattle show for fat cattle, which takes place annually before Christmas. I saw some of the premium beef and mutton a few days after hanging in the Leadenhall market. Such a sight I never before beheld. The meat was beautiful, but entirely too fat to suit my notion, or the tastes of the great mass of the people. It could not be profitable or wholesome to the consumer, the fat was so entirely disproportioned to the lean. The first prizes for oxen and steers were taken by the Herefords; for cows and heifers, by the Durhams. I must confess that the beef which was pointed out to me as being from the Herefords, was in some respects superior to that of the Durhams; the meat being finer mottled or marbled. The Durhams seem to have laid on the fat more in lumps. The Herefords to have the fat and lean better intermingled; and this is considered one of the points where they excel the Durhams.

Breeding has become a regular science, and is carried on as systematically as any other. The secret is confined to a very few of the most successful breeders, and is not likely to transpire very soon. Competition between the breeders of the two favorite kinds of cattle and sheep is very keen, and no expense is spared to have the best; and thorough bred animals fetch higher prices now than ever before.

My own opinion as to the merits of the two breeds of cattle has been somewhat modified since I have been here, and had an opportunity to see for myself. I should prefer a herd of cows of the improved Short Horn Durhams, and a herd of working oxen of Herefords. For working cattle, I have never seen anything equal to them. Pure blooded, however, is very expensive, even here; it would be doubly so with us; and breeding from pure blooded animals is confined to comparatively a small number. I find the midland farmers generally prefer grade animals, being a cross between the two. They say that the grade cows give more milk on the one hand, and richer on the other, than the thorough bred of either; and their practice is to buy, or hire from the thorough breeder good bulls, and thus improve their stock at small expense. I would recommend to such of our farmers as wish to improve their stock at the least expense, to purchase good Short Horned bulls, and cross with our best common cows, and with the second or third cross use Herefords. Great improvement can be made in that way at small expense. And for all practical purposes to the farmer, as good, if not a better stock can be got up than to be at the expense of pure bloods. Let those who are able to import stock become bull breeders; and in a little time the whole country will come to reap the benefit of the improved stock. The great Durhams in our state, and West, are as fine animals as I have seen anywhere, for all useful purposes. The only thing is to keep them up to the proper point. I think this can be done best by crossing with the Herefords. Such at any rate will be my practice.

One of the best Hereford bulls I have seen, indeed one of the best I ever saw of any breed, is going out to Albany by the packet ship Hendrick Hudson. Major, was purchased by Mr. Sotham in person for the herd of Messrs. Corning & Sotham of your city. There is no better in England; and it's no disparagement to our best breeders to say that he has not his superior in the Union. He is four years old, has proved himself a capital stock bull, and I consider his acquisition a real treasure to our state. Mr. Sotham is also taking out two improved Short Horned cows and a bull calf, besides quite a number of Cotswold and Leicester sheep. Venus is a very superior cow; but Cleopatra for pedigree and form, is one of the very best that has been taken out.

I find this has become so lengthy that I must postpone my remarks upon other stock until my next.

The weather up to this time has been very mild,

though still wet. The fields are green, which looks to me strange and unnatural at this season of the year. A good old fashioned snow storm would be a real luxury. I pity people who never enjoy the pleasure of sleigh riding of a bright starlight winter's night. Wishing you the enjoyment of many such, I remain sincerely yours,

T. C. PETERS.

#### OX GEARING.

MESSRS. GAYLORD & TUCKER—Having been a reader of your invaluable paper for the last year, I have been highly gratified by the numerous engravings, embracing almost all kinds of farming implements, machines, &c. I have not, however, seen any plan of an ox gearing, except the Dutch method; and as I believe that an ox will bear a heavier burthen next the shoulder than at the head, I submit the following plan, thinking it may be interesting to some of your numerous readers.



Fig. 47.

Fig. 47, is a side view of the stick  $7\frac{1}{2}$  by 8 inches, marked out as follows: the bow holes being 9 inches from center to center, and the staple holes 12 inches from the center of the bow—measure 2 inches out from the center of the bow, from  $a$  to  $c$ ; then set the compass so that the circle point will just touch at the points  $a$  and  $b$ , 3 inches from the top of the stick, and mark the places for the neck; then set the compass 3 inches wide, which will mark the ends  $d$  and  $e$ .

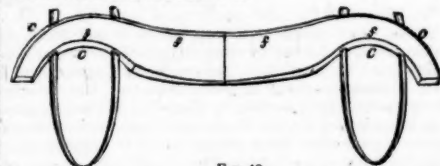


Fig. 48.

Fig. 48—After the yoke is worked down to line  $c$ , then it may be cornered down to line  $f$ ; the neck places are to be cornered one inch convex, or an angular oval from side to side, worked smooth—the ends rounded off in the same manner. The middle of the yoke may then be worked off from  $c$  to  $e$ , leaving it 5 inches wide from the bottom as above. The sides may then be worked down in the middle within  $1\frac{1}{2}$  or  $1\frac{3}{4}$  inches of the center of the staple holes, which should be bored with a three-fourth inch auger, and the bow holes with a seven-fourth auger. The ends on the sides may be hewn down to  $4\frac{1}{2}$  or 5 inches thick, and well cornered, so that it will not hurt the shoulder. As oxen's necks differ more on the lower part than top, it is difficult to have any exact rule for the bend of the bow. Care should be taken, however, that it is so bent that it will work between the neck and the front point of the shoulder bone; for if it is a little too wide or too narrow, it will cause much distress. The above yoke is calculated for cattle that will measure 7 feet. The length may be varied at will; but if it is varied on the bow holes, the two inches from  $a$  to  $a$  must be varied in proportion.

O. H.

N. B. The bow holes should be bored square through. The staples deserve the attention of every teamster; the iron should be made round before bending, and bent on a half circle with a shoulder projecting about half an inch at the holes.

Rupert, Vt., Jan. 31, 1842.

#### MILK HOUSE, &c.

EDITORS OF CULTIVATOR—Having seen an inquiry in your useful paper relative to the best method of constructing a milk room, the following hints are submitted for the consideration of the inquirer, and those wishing to investigate the subject, by a lover of good butter and cheese.

To insure perfect success in the above art, the following rules should be observed:

1st. Good milkers, well selected from the best breeds of cattle for that purpose, and to keep them on good sweet pastures, or succulent food.

2d. A good clean yard, and faithful, humane milkmen or maidens. For my part, I admire the latter, as more neat, kind hearted, and neither so harsh or boisterous to the animal, which, like the earth, will not produce well unless kindly treated.

3d. Clean and sweet vessels, which are much improved by cool, pure spring, or well water, and neat milkmaids.

4th. The milk room, to set the milk to cool, should be so constructed that a circulation of cool, dry air should freely pass through it to carry off, as quick as possible, the volatile effluvia which rises as the milk is cooling, and would soon become impure if confined in the milk room, and thereby impart its impurities to the milk.

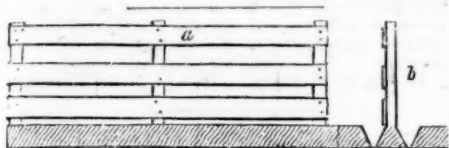
5th. The temperature should range, by Fahrenheit's thermometer, between 48 and 58 degrees, to prevent a putrid fermentation from taking place; to obtain which, the following description of a milk room is submitted:

1st. A good room of sufficient size to accommodate the size of the dairy, which should be so constructed as to exclude it from the influences of the surrounding atmosphere, or changes of the weather, by good walls, filled with some substance that is a non-conductor of heat.

2d. There should be a ventiduct at the bottom of the



room to admit a free circulation of air, and a ventilator at the top to discharge the impure air, occasioned by the effluvia and fermentation of the milk. The ventiduct should pass through the dryest ground possible, and four feet below the surface, for the distance of four or five rods, of sufficient capacity to admit the air to pass through and cool before it enters the milk room; this can be done by a small bellows placed at the outer end; and (worked by the same machinery that is used to churn the butter,) this bellows will force the air through the earth, which is said to be, four feet below the surface, about 52 degrees. This ventiduct should open in the center of the milk room, over which should be placed a cover, say two inches above, to cause the air to scatter, or circulate to every part of the room, and out through the ventilator at the top, which should be of sufficient size to let the air pass off. It may pass off horizontally, or out through the top, according to the construction of the milk room. The above hints are submitted, with some diffidence; they may not be correct in every particular, but in the main they will, I presume, be found to be something like what is wanted to insure general success in the art of making good butter, which is so desirable, and not very often to be met with; but much depends on the working, salting, &c., to cause it to retain all its good qualities. The principle has been suggested by an extensive experience in obtaining an even temperature for another purpose; and if you think it would be of advantage to your inquirer, or the readers of the Cultivator, it is at your and their service, by a friend to agriculture, and especially to that of good BUTTER AND CHEESE.



IMPROVED BOARD FENCE—(Fig. 49.)

MESSRS. GAYLORD & TUCKER—As the time far farmers to commence building their fences will soon be at hand, I here present you with a cheap and good post and board fence. I mark out the line of my fence, setting the usual number of posts to the panel, and then plow two furrows on each side, throwing them towards each other until they form a true ridge; then nail three boards of about ten inches wide, placing the first board close on the ridge; the second within four inches of the first; the third within six inches of the second. This makes a fence that no horse or ox can get over. This is not all; it prevents the frost from heaving out the posts; and the wind will not lean it over as it would the usual board fence when the ground is soft and wet in the spring; and forms a good drain on each side of the fence. *a*, side view of fence—*b*, end of a panel, and ridge and ditch on each side.

Waterford, N. Y., March 5, 1842. W. G. V. D. B.

## STABLING HORSES.

MESSRS. EDITORS—In looking over your paper, I find a few remarks on stabling horses, going to show that a plank or board floor is less injurious to horses' feet than that of ground. As doctors will differ, we farmers certainly should have the privilege. Our friend appears to think, that by having a ground floor or earth to stand on, it follows that the horse must be kept in a dirty or filthy way. To show his error in that particular, let him examine all training stables in which, so far as my experience (although limited) has led me to believe, he will find them perfectly clean, and not a plank to be seen or found; in place of which, earth or stone. If he will further examine the feet of horses thus kept, he will satisfy himself that boards or plank are not necessary to the preservation of a horse's hoof. On the contrary, if I am not much mistaken, he will change his opinion—in saying that a ground floor is absolutely necessary to keep a horse's feet free from many diseases. To further his views on this subject, I would inquire whether a stable having a ground floor properly made and kept in order by bedding—indispensably necessary to the horse's comfort—whether standing on ground, floor boards or plank—this bedding or litter kept under the horse, by shaking up and cleansed twice a day, adding thereto as becomes necessary by removing the parts not fit to remain—will not the horse stand in a stable thus arranged as well, in every particular, (*I flatter myself much better*), as he would do on a plank or board floor? If so, there are many reasons to be given why a farmer would dispense with the boards or plank; one of which is, the cost, wear, danger of slipping, and falling through; another, show me a horse's fore foot, kept on plank or board floor, oiled or not, (the utility of which I much doubt,) and my word for it, his hoof is as hard as a brickbat. On a ground floor, his feet will be less hard, and will have a greater share of moisture and life; beside which, a ground floor is all important to the farmer, on account of the saving and making manure by its use. As with it, everything is saved; and without it, much is lost, arrange your plank floor as you can. In short, taking in consideration the cost of timber, stone, plank and carpenter work, add to which the wear and decay, slipping of your horses in winter, as also the risk of horses rising in the stalls, together with the loss of manure, I think should be considered as a sufficient reason to one of thirty years' experience, without a plank floor on his

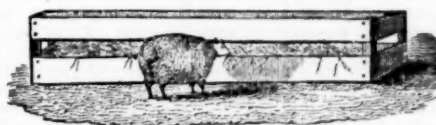
farm, to recommend his decision, having previously fully tested the evils attending the plank floor.

A SUBSCRIBER.

## SALMAGUNDI—No. V.

"There is a tide in the affairs of men, which, taken at the flood, leads on to fortune."  
There is now a tide in the affairs of sheep, which will lead—who knows where?

There is probably no subject connected with the pursuit of agriculture so little understood among the mass, as the rules or true principles of breeding domestic animals. In England, it has attained almost to a science; and investigation and the results of experiments made by thorough, observing men, with us, have served to add to its demonstrations. But the mass, as remarked, are lamentably ignorant, especially that part of it embracing the subject of crossing. This being so notorious a fact, it is a matter of no little wonder that editors of agricultural papers, who should know something about it, are so loth to enlighten their readers. It is possible though, that however much may have been written on the true theory of breeding, it would have been disregarded; because we are not only an enterprising, but an experimenting people; and it must be added, which is probably derived somewhat from our form of government, a self-sufficient people. We have a repugnance to being influenced by the example, or governed by the precepts of our best friends in matters appertaining to our occupation; much less, the results of the experience of foreigners, and the scribbling of book farmers. Hence, from some sudden impulse of ill digested enterprise, one is disposed to try what kind of a "thing" can be made from a cross of the Saxon and South Down; another with Saxon and Cotswold; another with Merino and South Down; and another with—who knows what? but it must be a cross with something—even with a Greenland bear; so that the produce is supposed will be hardly enough to live in snow banks, and without care and attention! It has often been remarked, that this is the age of experiment and humbug; and the future historian will certainly be false to his duty if he records it otherwise. We are truly a humbugging people. We love to humbug others, and in turn, like to be humbugged. Indeed, it is natural with half of mankind, and has been so since the fall of man. Humbug is the chief lever of the corrupt politician; and it is practiced through every grade and condition, and age, down to boys who swap knives—"unsight, unseen." But we Yankees do practice it, apparently, more than any other nation; and love it, too, better than Col. Murray, the English traveler, does "clam soup." Farmer B. obtains an English variety to cross with his flock of Saxons, and boasts that the produce is the *ne plus ultra* of sheep; that the quantity of wool and hardness of constitution have been greatly increased, &c. &c., and demands a corresponding price for his "improved sheep." Money making being a primary motive, he is sure to find a soft one to gull, and his price is obtained. His example is infectious; another, and yet another, must try it, or something else, and so it goes to the end of the chapter. And now, I ask, is there not much of ignorance, and not a little of deception at the bottom of all this? And if so, whether it is not time that it should cease? My opinion is, that it is time; and why? Because I conscientiously believe that a cross of the Saxon and Merino with any of the English varieties of sheep, is palpably wrong; because it will result eventually in loss, rather than gain, with all who undertake it. Now let one and all understand, this is opinion; an opinion formed though after some reflection and personal observation. Am I wrong? Then let me be convinced, not by attempts at guessing, or mere speculations, but by sturdy, well authenticated knock-down facts, and deductions drawn from the true theory of breeding. But what I have advanced, I repeat, is opinion; and therefore, I deprecate any man, a "mounting me rough shod," for assuming too much. My object is to get up a discussion with an eye single to the interest of the many, rather than the few. I further state, that the conclusion I have arrived at, takes not its hue from personal interest. On the contrary; the disposition among farmers to ruin their fine flocks by crossing with English sheep, is the very thing to promote my interest; and why? Because, being a grower of fine wool, with the fixed determination to continue so, it is plain, that in proportion as the quantity produced of it is diminished, the price will be enhanced accordingly. So I am on honest and fair ground. Then, "come one, come all," and let us fairly discuss the question of crossing the Saxon and Merino with any of the English varieties. Let us determine whether we believe and think as John Bull believes and knows, or whether he is an ass, and consequently his knowledge "concatenation accordingly."



Hay Box for feeding Sheep—(Fig. 50.)

With others, on former occasions, I have adverted to the slovenly mode of feeding hay to sheep by a large majority of farmers, and the waste that follows. The open winter we have passed, with those who have fed on the ground, must have caused a greater waste than usual; therefore, the subject cannot be presented at a better time than the present, and a remedy proposed. I here-

with send you a drawing of one of my feeding boxes, which I have found from a trial of years superior to anything I have used, or that has come within the scope of my observation. In its use, there can be no waste of hay by being pulled out and trampled on, as is the case with ordinary racks. The butts and stems which sheep are loth to eat of coarse hay, can be taken out from time to time and fed to cattle, which they will readily eat in cold weather; and this is a large item of economy. But besides this, it demolishes everything like aristocracy, or the strong lording it over the weak and humble; every sheep standing up to its place, "on the broad principles of republican equality;" each undisturbed by its neighbor. The lower boards should be 15 inches in breadth for grown sheep, 12 inches for lambs; and the top boards, 12 inches for the former, and 9 inches for the latter. The opening through which the sheep feed, should be 8 inches for full sized sheep, and about 5 inches for lambs; and the width from 24 to 28 inches in the clear, which is sufficient to prevent disturbance when on opposite sides. Mine are without bottoms; therefore lighter, and easier of removal. I have seen them constructed with troughs inside; but I do not like the plan, as stems of hay lodge in them, which occasions the trouble of removing when grain or roots are fed; aside from this, they are clumsy, and more expensive than when the boxes and troughs are made separate. One man will construct a sufficient number of these boxes for 100 sheep in a day. The *modus operandi* is thus: lay the upper and lower boards down flat, as far apart as the opening is required; then take three slats, three inches wide, and one to one and a half inches thick—nailing, of course, crosswise the boards, one at each end, and the other in the middle. The nails should be tenpenny, and heated, so they will clinch. This completes one side. The end boards should come inside of the length boards, and nailed to the slats. After this, take a jack plane and smooth the upper edge of the lower boards, to prevent taring the wool from the breast and throat of the sheep. Six of these boxes are sufficient, if each 12 feet long, for 100 sheep, and one less for the same number of lambs. Let farmers take the opportunity when the weather is inclement, and make for themselves a set of boxes, and try them; and I am sure in saying, that ever after they will avoid feeding hay to their sheep on the ground. They should consider that in the month of March, when the weather is wet much of the time, sheep require the very best of attention; but if their food is loathed, which will be so if fed on the ground, they become enfeebled, and death soon brings up the rear. In conclusion, my brother farmers, if you wish to keep at least 10 per cent more of sheep, and have them come out in the spring in 10 per cent better condition, on the same quantity of hay, abandon your slovenly mode of feeding, and adopt the remedy proposed.

HAY PENS.—There is yet another thing of which farmers in general are destitute, and of vast consequence in promoting economy when foddering sheep; namely, a pen for the reception of the hay when thrown out of a building or from a stack. All know the waste, in a moist time, by sheep piling upon it if thrown on the ground, which is remedied most effectually by means of a pen. They are of trifling expense, which is reimbursed four fold in a single season. Mine are about 3 feet in height, and 4½ to 5 feet square, constructed of pine or hemlock scantling, with board slats nailed to them; the slats being about 2½ inches apart only, to prevent the sheep getting their heads between them. A pen, too, of this size, will prevent the hay seed and chaff from lodging in the wool; which, if otherwise, wool buyers will take advantage of, and with good reason. There is yet another advantage; if too much hay is thrown down for a foddering, it can remain in it, and save the trouble of pitching it back. All these things, however small they may appear on paper, are nevertheless of great importance in the long run, and constitute, whether neglected or attended to, a heavy item of profit or loss in sheep husbandry. Let these pens be made on rainy days, when farmers can do nothing else.

FEEDING OATS IN THE SHEAF.—In the March number, under the head of "Work for the Month," you say, Messrs. Editors—"It will also be an excellent plan to allow sheep, once a day, a few oats in the sheaf, instead of hay." Now, gentlemen, I am not a "captain," nor do I train in any captain's company; nevertheless, captain like, I am a great stickler for consistency, and have a profound regard for the constitution of sheep husbandry; consequently, I am constrained, painful as it is to my feelings, to "veto" your recommendation of feeding to sheep "oats in the sheaf." It is a wasteful practice; and such is my abhorrence of it, on this account, that I would justify any boy in striking his daddy when caught doing it. If fed in the way you recommend, when the ground is frozen, in the scramble that takes place, not only the strong sheep get the largest portion, but much of the grain will be shelled and left, and it is surely wrong to feed in this way when the ground is unfrozen, for the loss will be still greater, by being tainted by their feet, as well as shelled and trodden into the ground. Again; if fed in boxes, which is the only decent way, and I have charity to suppose you meant it should be so, there is an objection; for, before much is distributed, a rush is made, and a few sheep will seize, each, a large mouthful, more than they can manage, back out from their stands, and down much of it goes on the ground, to be trodden and wasted. All that I have remarked is the result of personal observation. The only correct and economical way of feeding, is to separate first the grain from the straw, and afterwards feed them separately;

the first, in triangular board troughs, and the last, in boxes, such as I have recommended. Do you give it up, gentlemen? If not, I'll try again. I'm an "old 'un" in feeding oats and oat straw, and will say something more about it at the proper season.

The last month as well as the present one, being the season when much manure is, or should be, disposed of on fields designed for hoed crops, it reminds me of—"Hon. JOHN DOE."—It was proposed, as heretofore stated in the last volume of the Cultivator, by Col. H. S. Randall, in his capital address before the Tompkins Agricultural Society—"that he who made only 50 loads of manure, should be called plain John Doe; if double that quantity, Mr. John Doe; that 200 loads should confer the title of 'Squire Doe; and 400 loads, that of 'Honorable John Doe.' Of course, I should not have adverted to this again, but for one of my neighbors who heard the address being dissatisfied with the proposition in its present shape. "For," said he, "you know, sir, that I am a farmer on comparatively a small scale, and when doing my very best, I cannot make over 200 loads, and some years not as much; therefore, I can never get higher than the title of 'Squire,' as long as grass grows and water runs; that, as the matter now stood, it was calculated to secure the title 'honorable' only on large farmers, and seemed, therefore, too aristocratic." He suggested a modification, with a view to making it conform more strictly with republican principles, as follows: "that in each and every instance, where it could be proved by unimpeachable testimony, that any farmer who did make, save, and duly dispose of all his manure to the best advantage, without regard to any specified quantity, should have conferred on him the title of 'honorable' by the president of the N. Y. State Agricultural Society." This is right. I second the motion, and move the previous question. Those in favor will please to say aye. Carried, without a count. You will please, gentlemen, "keep it before the people" in its amended form.

By the way, in the last volume of the Cultivator, an Ohio correspondent has recommended that sheep help themselves to hay from stacks in winter, instead of being foddered in the usual way, or in any other way. This has stuck fast in the crop of my honest neighbor Ben Rogers; and he informs me that he shan't rest easy until the plan is duly tested by the "Agricultural Thermometer." He says—"he has a kind of a thinking, that when it is brought to the test, instead of any bright sparks, there will be an awful stench of laziness." Just refer it at once to "A. of the North;" for the old fellow will not be easy till he knows all about it. That's all. Your friend,  
L. A. MORRELL.

Lansing, Tompkins Co., N. Y., March 8, 1842.

#### WINTERING STOCK ON PASTURE.

EDITORS OF CULTIVATOR—Amidst a pecuniary gloom which is nearly overwhelming the interests of the western agriculturist, it might at least to some seem heartless to say anything in his behalf, or anything that could encourage him. When pork is not worth more than a cent and a half, beef about the same, corn ten cents a bushel, and all things else rating at about the same proportion, and cash scarcely to be had at these prices, and some debts to be paid, you will readily admit that we have some good cause to feel gloomy. Yet hope, that great sustainer of human nature, our only comforter in seasons like the present, whispers, better may come; and I will therefore proceed, and give you the result of my winter pasturing in this latitude, which lacks but a fraction of 40, north.

My horses consist of one, two and three years old colts, and a few brood mares. My horned cattle consist of one and two years old steers, and cows which had suckled calves during the summer, and were all in good condition except the cows, which were a little thin in consequence of their calves running with them during the summer. In the latter part of November I turned this stock on a blue grass pasture of about two hundred acres that had been kept up during the spring and summer, and they have run upon it until this time without any feed except what they procured from the pasture. The horses are in very fair condition for this season of the year—the older ones in better condition than the younger ones; and they are all in better condition than when they have been, as heretofore, wintered on hay. The horned cattle have done better than the horses. The cows are in better condition than when taken from their calves; and some of the two years old steers would make good beef; and the yearlings are thrifty and fine. Thus have I wintered my stock the past winter; but it is proper to state, we have had an unusually mild winter; we have had but little snow until the latter part of February, when we had a pretty smart fall, which lasted some eight or ten days. I am, however, induced to believe that horses and horned cattle may be wintered in this climate in a great majority of our winters on good blue grass pasture. In the fall of 1840, I removed my horses from the pasture on which they had been kept during the summer a few miles to a meadow, and turned them to hay, except two two years old colts, which, from accident, were left; and as I was from home during the winter, they remained here during the winter without salt or feed, and to my astonishment in the spring I found them doing about as well as those that run to hay; and that winter was a very fair sample of the winters usually here. This circumstance confirmed me in the belief, that good pasture was sufficient for stock in this latitude. Last season I reserved a pasture

for winter, and have done well; and the hay that I have usually fed during winter I am now selling.

Blue grass that has been kept up during the spring and summer, (in this county at least,) forms a very thick and heavy coat; and although heavy snows fall upon it, horses will remove it very readily with their feet, and seem to find little difficulty in filling themselves; and the snow upon the grass rather preserves than injures; and cows, although they do not use this mode of removing the snow, very readily thrust their noses into it, and with their hard, tendinous lips, press it forward; and when they have once made an opening, they will feed round a common center for a considerable time. Colts and calves, I think, most likely in this manner, would not do well; of this, however, I cannot speak from any trial made. Their ages probably would render them too delicate to make a subsistence in this way.

Of the benefits of thus wintering, I need say nothing. It is thought a great saving in the way of cost and labor; two very important items in times like these. The price of the article makes it necessary to be raised with the least possible cost.

In relation to my kind of pasture, permit me to say that we have almost interminable forests all over the state, which are not yielding the owners a farthing, that will make such as I have by deadening the timber, rail timber excepted, and sowing in blue grass. Remove no logs; grub no spice; it costs too much. The bushes afford the finest amusement for fat cattle; they apply their horns to them and ride them down; and if you are scarce of bushes and wish to test what I say, turn a lot of them into a young orchard, and you will see what sport they will have with your young trees.

My sheep, a small flock, I have wintered upon a meadow which was mowed about the usual time, and is red clover and orchard grass. It was kept up after harvest until the latter part of November, when my sheep were turned in. My hay stood in the meadow unfenced; and until the middle of February, the sheep had not touched it. They have since that time eaten a little from one of the stacks, and but very little indeed. They have had no shelter, and are in exceeding fine health and condition; and there is not a wether in the flock but would make fine mutton now. They are common sheep, except one—a merino buck.  
A. C. STEVENSON.

Green Castle, Ind., March 21, 1842.

#### ON REARING CALVES.

MESSRS. EDITORS—As I have for the last several years frequently read the inquiries of gentlemen through the medium of the Cultivator and Farmer for the best modes and manner of rearing calves, and as often have I read answers to those inquiries, none of which have altogether coincided with my views upon that important subject.

I accordingly venture forth to offer my views relative to that subject; knowing also that there are many among your numerous correspondents possessing the ability and frankness to suggest their opinion when I am right and when wrong, if I should be so fortunate as to advance even one principle right; so that the more the exposition upon the subject the more capable shall we be of arriving at some safe and final conclusion upon a subject of some importance to the rearer of fine stock.

When the calf first comes, I do not allow it to suck more than one-third of the milk, if the cow is a good one, continually increasing until when three or four weeks old, at which time I allow him to take all the milk, and in all cases to suck it from the cow. After four weeks, if there is pasture sufficient for feed, I turn the calf out to run with the cow to suck when he chooses, until when about nine months old, at which time the cow will generally wean her calf off; which, if in winter or setting of winter, I give the calf a warm stable and plenty of sweet hay, with perhaps two quarts of roots of some kind sliced up, also always remembering to have a trough of salt for all my cattle to go to when they choose; and when spring arrives, turn my calf out to pasture, letting him fare thereafter with my other older stock.

My reasons for this management and course of treatment will be readily understood from the following data:

By giving good and nutritious food as first, such as nature directed, all parts of the system are kept growing according to nature's laws in exact proportion.

But on the contrary, should a calf be brought up upon skimmed milk "by hand," as the saying is, it is sometimes fed on milk at one certain degree of temperature, and at another time, at another certain degree of temperature, varying in degrees of heat as often as fed; and as often fed irregularly, and I might in some cases say rather sparingly for some three or four months, and then turned into the pasture to shirk for itself. In this way, at best, the food is poor, and requires a greater quantity to support the solid parts of the body, thereby distending the capacity of the stomach and intestines; as the poorer the food, the less the chyle to support the animal system—the remainder passing off in the excrements, at the same time contracting and stinting the lacteal vessels which convey the chyle from the mesentery to the thoracic duct.

The chyle is a white juice in the stomach, consisting of the finer and more nutritious parts of the food, which is received into the lacteal vessels, and serves to form the blood. The heart is the center of circulation in the animal system, and is called the seat of life. It is divided in the middle by a partition, if I may be allowed the expression, and on each side are two cavities called

the ventricles; one on the right called the pulmonic, and the other on the left called the systemic.

Attached to each is a cavity called the auricle, and from each proceeds a large tube called an artery—one the pulmonic, and the other the aorta; the first conveys blood to the lungs, and the other expels it through the system.

Hence my conclusion, that the poorer the calf is kept, the more the lacteal and arterial vessels will be contracted and stinted, and the more the stomach and intestines will be distended, which is plain as before; and should this course be persevered in, the finer points and just proportions never will nor can be fully and fairly developed, no matter how well they may be kept thereafter; although some may, by great care, be brought to a positive state. But as a general rule, it stunts them forever.

Again. Where a calf is fed too bountifully, as is the case with many at the present day, all the vessels become extended to such a degree that the reverse cannot but be expected; that is, the vessels that carry nutrition to the solid parts of the body will be so much more extended than the intestines, &c., that when they come to be fed as all farmers should wish to feed their stock, after one year of age, on good hay only, the stomach and intestines become insufficient to furnish the necessary wants of the lacteals, &c. &c.; so that that sympathy of the parts will not be preserved, so essential and requisite for their future advancement and prosperity. And when kept in either of the two extremes for one year, and then placed side by side with those fed on the medium course, at three years of age, the difference of the three different courses will be satisfactory, even to the most sceptical.

I am, sir, yours with regard,  
Batavia, N. Y., March 13, 1843. UN FERMIER.

#### A CORN-STALK CUTTER.

EDITORS OF THE CULTIVATOR—I noticed in the last number of the Cultivator an instrument recommended by James M. Garnett, Esq., of Va., for cutting corn stalks. The article is no doubt good; but I think I can describe one much better adapted to the purpose. It is more economical, efficient, and much more agreeable to work with than his. No stooping is required at the work, and it is much more expeditiously performed; it never "jars off the ears of corn."

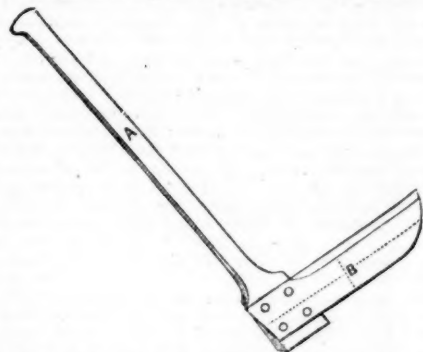
It is simply a handle, nearly similar in form and size to an axe helve, to which is attached by three or four rivets a thin plate of steel, about four inches broad and nine inches long. Nothing better can be had for the purpose than a piece of broken hand saw blade. No blow is given; but owing to the construction of the instrument, and slightly bending the stalks, the cutting is effected almost without effort. The bevil must be altogether on the upper side of the cutter; and the cutter should not stand at right angles with the handle. A sliding cut is the easiest with all edge tools.

When the cutter is riveted to the handle, the latter should be crooked; or which answers the same purpose, sink the cutting edge deeper into the handle; this inclines the edge inwards, which, together with having the bevel, and grinding, always on the upper side, effectually prevents the edge from slipping up the stalk.

I unqualifiedly venture the assertion, that no person who desires to work with expedition and ease to himself, will voluntarily return to the old fashioned cutter, after using the improved one half an hour.

I have often felt indebted to J. M. G. for his valuable communications in the Cultivator and other agricultural works; and with many others have profited by his long experience. Should he perchance realize any benefit from mine, my object is fully attained.

The annexed diagram fully explains the implement.



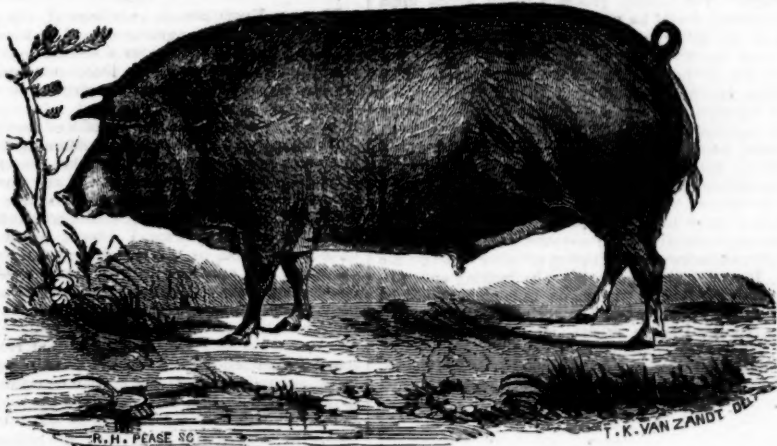
A, 3 feet long—B, 9 to 10 inches long, and 3 to 4 inches broad.

Montgomery Co., Md., January 14, 1842. A FARMER.

DISTRESS IN ENGLAND.—The following is the classification of the incomes of a large portion of the poor in the large manufacturing town of Rochdale. It is the result of a personal investigation by a committee.

	131 living upon	0s. 6d. per head per week.	
291	do.	0s. 10d. do.	
208	do.	1s. 6d. do.	
1855	do.	1s. 6d. do.	
1500	do.	1s. 9d. do.	
812	do.	2s. 2d. do.	





MR. BEMENT'S BOAR RIP VAN WINKLE.—(Fig. 52.)

Mr. TUCKER—With this you will receive a portrait of my Berkshire boar, "Rip Van Winkle," to whom was awarded the first prize for the best boar exhibited at the fair of the N. Y. State Agricultural Society, held at Syracuse in September last. I do not offer it with a view of saying much in favor of the breed, for they are now so widely disseminated throughout the country, and so well known, that all I could say would be of very little consequence; but it is with a wish to exhibit a correct portrait of a Berkshire hog, which has not been given in any of the late volumes of the Cultivator.

The above portrait was taken by Van Zandt soon after he was exhibited at Syracuse, and I think you will recognize him at once, and say—"he is a Berkshire every inch of him; and that Van Zandt, as well as Mr. Pease the engraver, have done him justice." If there is any failure, it is in his legs, which I think he has made too small, and gives him rather a "leggy" appearance. He has bone enough to sustain 6 or 700 weight; and it is the opinion of many that he may be made to attain the latter weight. His head, neck, and ears, "are to the life," and his proportions are admirably good.

By-the-bye, I will take the present opportunity of giving an extract from a letter I received in December last, from Mr. John Bonner, of White Plains, Ga., to

whom I sent several breeding sows last year; and no one, I assure you, has been more rigid or particular to procure the pure blood, and the best animals too. He is now rearing them for sale at \$20 per pair—"first come, first served;" and applicants in that section may depend on procuring from him the real "simon pures."

He says—"At the fair, held at Sparta on the 6th inst. (Dec.) Mr. A. E. W. Brown, who resides near Sparta, in Hancock county, exhibited "Black John," a Berkshire boar pig, four months and twelve days old, that took the first prize of \$5 for boars; and he weighed that day 166 pounds, and was the produce of "Black Rose," which you sent me, and which you said was got by the Shaker boar, Great Crosser," &c. &c.

The above mentioned pig, it will be observed, was bred by Mr. Bonner, and sold to Mr. Brown.

One of the Berkshire sows I sent Mr. Bonner was stunted to Rip Van Winkle; and in a late letter he says—"I have a remarkably fine boar pig, got by Rip Van Winkle out of the last sow you sent me, which promises to equal any hog I ever saw." His pigs have been much admired wherever I have sent them; and many of his pigs may now be found in Georgia, as the sows I sold Capt. Hardwick of Sparta were all in pig to him.

Three Hills Farm, April, 1842. C. N. BEMENT.



PLAN OF A CHEAP HOUSE.—(Fig. 53.)

MESSRS. GAYLORD & TUCKER—Having sketched the plan of a small and convenient cottage, on a different plan from any that I have seen published in your paper, I now offer it for publication. Main body, 20 feet by 26; posts, 14½ feet. Wings, 10 by 16 feet; posts, 8½ feet. Lower rooms, 8½ feet between joints. Wings to set back 1 foot, giving the carpenter a better chance to make a good finish, and giving a much better appearance to the building. 8 feet will be occupied for a hall and stairs in the center of the main body, leaving 6 feet each side of the hall, which, added to the room in the wings, will form two rooms 16 by 16 feet. The east room will be calculated for the kitchen, and the west for the parlor. On to the rear of the east wing will be added a linter of 7 feet, for pantry and passway out back; or if not wanted for a passway, will be found to make a very convenient clothes room to hang up such of the every day wearing apparel as is always wanted handy by. The rear of the main body will be divided into two

bed rooms 8 by 9 feet, leaving a space of 4 feet between them for two clothes cupboards 4 by 4½ feet, or it would make one large one 4 by 9 feet, best calculated to accommodate the bedroom opening from the kitchen.

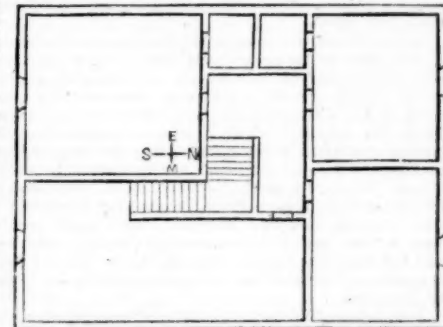
There will be a space under the stairs and in the rear of the hall for a cupboard, and considerable room to set pots of butter, sweetmeats, &c. &c., which will be kept from the light and heat. The main opening should be from the kitchen side, and two small half doors, if you please, from the parlor side to accommodate about setting the table in parlor, and prevent much passing round, and would be found very convenient in sickness, and through which the lady of the house might often speak with those in the kitchen.

The space of one foot depth by the side of the windows in the main body, which will be left when the walls are made straight, may be occupied in the parlor for setting canes, umbrellas, hats, &c. in; and those in the kitchen—one to set your clock in, which should be finished off to fit it, and the other to hang up a loose coat, set in your shoes and boots on some small shelves, or whatever your taste might direct. Each space should be closed by a small door.

The front door should be set back one foot or more, with side lights each side and over the top.

Further described as follows: O, represents the oven—f J, fireplaces—K, arch kettle—S, sink—m, cellar door—c c c, cupboards.

The front stairs should rise about three-fourths of the way, and then turn west, to land in the upper hall, and give more room under them. I will add a sketch of the chamber rooms—giving merely the form—as any one can, after having the plan, lay out the rooms.



I have not thought best to make any estimate of the cost; for in hardly any two places would a house be built for the same money, or any two persons would be found to build for the same price in a like place.

Stillwater, 3d mo. 1, 1842.

B. CHASE.

## LETTER FROM SCOTLAND.

County of Roxburgh, Scotland, Feb. 29, 1842.

To the Editors of the Albany Cultivator:

SIRS—I have recently received several numbers of your periodical, forwarded to me by order of a friend in the United States. I have read those with great satisfaction, and have from the perusal derived much useful information on American husbandry practices, and on rural affairs generally. Without intending to flatter, I candidly and concisely give my opinion of the Cultivator. I think it ably conducted, and well supported by numerous intelligent contributors.

I hope you will not deem me impertinent in offering a few remarks on some of those communications. You have the editor's privilege in dealing with my essay as you may deem proper.

I beg to introduce myself to your notice as an old fashioned farmer of some experience, far advanced in years, and retired from active life, and retaining fixed opinions on husbandry, deduced from my former extensive practice. But I begin to think those opinions may have been formed in error and prejudice, as I now hear of such wonderful, nay marvellous discoveries in modern theory in this country, I am quite lost in amazement.

When I was in practice, I was led to believe the dung yard was the farmer's sheet anchor, and acted upon that principle; and firmly believed that straw was an essential article in forming farm yard manure. But now I am told that straw is of little or no use for that purpose. Our modern chemical farmers have got their heads so stuffed full of carbon, oxygen, nitrogen, hydrogen, phosphates, sulphates, nitrates, muriates, and other fancies, quite Greek to me, they ridicule and despise the old farmer's sheet anchor. On your side of the Atlantic, you also appear to have prodigies; such as

THE TRANSMUTATION OF WHEAT INTO CHEAT OR CHESS.—I do not know any plant by the name of cheat or chess. I will suppose it to be the plant here called darnel, *Lolium temulentum*, and treat of it accordingly; for even if a different plant, the remarks I am about to make on darnel will probably apply less or more to cheat or chess.

Darnel is a pernicious plant, frequently seen among the wheat crops of slovenly farmers. It is a hardy plant, and retains its hold in the ground when wheat is thrown out in severe winters. It is also much more prolific than wheat; so much so, that if only a small portion of its seed is sown among wheat in the first instance, and no attention paid to weeding its plants out of the wheat crop, it will, by a repetition of sowing the produce, entirely supplant the wheat in a few years. Hence may have arisen the idea of transmutation. But I should as soon have imagined a horse could be transformed into a cow, as that one vegetable could be transmuted into another of a different genera, as in the case of wheat and darnel. The seed of darnel has some resemblance to wheat, but easily detected on close inspection. It is longer and thinner than wheat, and has a blue gray cast of color. It is particularly objected to by millers and bakers, as it injures the flour and is considered deleterious.

Attentive farmers are careful in the selection of wheat for seed. They reject samples in which they see either darnel, or cockle, *Agrostemma Githago*, another prolific weed which infests wheat fields. The seed of it is round and black. It is not considered deleterious, and millers and bakers do not so much object to it as darnel. Judicious farmers are careful in weeding both plants out of their growing wheat crops; and when they winnow wheat, they do not throw the seeds of weeds into their dung yards.

When an attentive farmer succeeds a sloven in the occupation of a farm, he is careful in having the yard dung well turned and fermented, with a view to destroying the seeds of weeds, before he applies the dung to his land in preparation for a succeeding wheat crop.

SMUT IN WHEAT.—Several contributors to the Cultivator give very proper instruction for pickling and liming seed wheat for the prevention of smut; but the dressing, however efficacious in itself, is not in many cases sufficient without further attention. It should be borne in mind that smut is a very infectious disease; and wheat seed, even after it is pickled, should not be spread out to dry upon a floor, upon which smutted wheat had previously been threshed. Neither should it be put into smut tainted sacks for the purpose of carrying to the field.

I have several times tried the experiment of inoculating seed wheat with smut, after the seed had been pickled, limed, and dried for sowing, by means of taking a sample of it in my hand and rubbing it with the powder of smut balls, then sowing it apart from the other. The result was, in every instance, I found smut in the produce of the inoculated samples, and none in the produce of the bulk from which they were taken. Smut is also sometimes taken to the field in unfertilized dung, made from the straw of smutted wheat of the former year's growth.

DURHAM SHORT HORN CATTLE.—Some of your correspondents affirm that cows of the improved Durham breed, here called "high bred, or well bred," are great milkers. They are not so esteemed in this country. There, no doubt, are exceptions to the general rule; and it is fortunate for your breeders they have got some such. We consider the superior excellence of high bred Durhams to rest upon their fine shape, great size, early maturity, and aptitude to fatten. In those points, collectively, there are no other known breed equal to

them. It is too much to claim for them also the palm in milking. Their character stands justly high, independent of that desirable qualification. But I must say, I think the quality of beef of the Hereford breed is superior to the Durhams; and the beef of the polled Galloway Scots superior to either, as is proved by the London market, where Galloways sell from a halfpenny to a penny per pound higher than any other breed.

Cows of the old Yorkshire breed of Short Horns are generally good milkers. They, as well as high bred Durhams, require rich pasture in summer, and to be well fed in winter. Crosses between well bred Durham bulls and coarse Short Horn cows generally produce useful animals, and will go on for several generations without deteriorating. Crosses between cattle of distinctly different characters is not commendable. They soon degenerate.

**AYRSHIRE CATTLE.**—The Ayrshires are a diminutive variety of Short Horns. They are in great repute as milkers, and are fast spreading over these islands. They are in every sense "the poor man's cow." They thrive and give a good portion of milk upon very short commons, where larger breeds would starve. There are also high bred or well bred among the Ayrshires, as in the Durhams, and with similar qualifications, with the exception of size.

**DISEASE IN CALVES.**—In the Cultivator of November last, Mr. Merrick states that in the preceding spring he reared eighteen calves, *part Durhams, and well fed*, and that in the latter part of summer five of the calves died in quick succession of a disease which he describes. He requests information on the cause and remedy, and whether the disease is infectious.

From the description given, I conclude it is the disease called in England by the several names of black leg, quarter evil, black quarter, and by other local terms. Young, high bred cattle, Durhams for instance, having a great disposition to fatten when forced with rich food, particularly in autumn, are subject to the disease. Young cattle in bad condition are seldom attacked by it. It is supposed to proceed from overflow of blood, accelerated by sudden change of atmosphere, and speedily terminates in mortification. Many remedies have been applied, but rarely with success, after the disease is firmly established. Preventives are the surest cure. When calves or yearlings of a high breed are forced with rich food, and full in condition, and exposed to atmospheric changes, particularly in autumn, they should be frequently bled, and drenched with doses of nitre and sulphur. If that is strictly attended to, the preventive means will seldom fail of success. The disease is not considered infectious.

Young Leicester sheep, of a good breed, forced with rich food, are liable to overflow of blood, and consequent mortification. The same preventives are applicable to them as to young neat cattle. The disease is the effect proceeding from the cause here explained.

"If children are fed upon roast beef, they will require a good deal of physic."

And now, Messrs. Editors, I trust my eager desire for the prosperity of agriculture in whatever clime, will plead my apology for thus commenting upon some articles published in your admirable periodical, and subscribe myself, your humble servant, TWEEDSIDE.

"TWEEDSIDE" will please accept our thanks for his favor. We shall be glad to hear from him frequently; and if he will favor us with his address, we will send him the Cultivator regularly.—EDS.

#### ROTATION OF CROPS.

**EDITORS OF THE CULTIVATOR.**—The subject of agriculture is becoming one of absorbing interest to the great body of our farming population; and the most important question that can be raised on the subject is, how the two great articles of farming capital, land and labor, can be made the most productive. In countries that are new, labor may be most profitably employed in clearing, fencing and improving land, and preparing it for cultivation; but when the land is thus prepared, the inquiry is, how shall this land be cultivated so as to give the greatest net proceeds for a number of years in succession? What amount of labor to the acre shall be expended, and what course shall be pursued, to preserve the productive powers of the soil? An acre of good tillage land, say a clover lay with 25 loads of good barn yard or hog pen manure, with proper cultivation, will produce at least 60 bushels of corn. The cultivation will cost \$20. The corn at 50 cents per bushel, will be worth \$30, and the stalks worth \$10. After the corn, raise roots, potatoes, ruta baga, sugar beet, carrots, or some of each. This crop would be worth \$30. This will violate no principle of good husbandry. An ameliorating crop will follow an exhausting one, and by having two hoed crops in succession, the land will be in the most perfect state of cultivation for a crop of spring grain. After roots, sow spring grain, wheat, barley or oats. The crop will be worth \$15, and the cost of cultivation \$5. With your spring crop, sow clover seed, fifteen pounds to the acre, with from one to two bushels of plaster, when your crop is well up. This acre of clover, cut and fed green to horses, cattle and swine, or cured for fodder, will be worth \$12. This acre of land, after lying two years to clover, and giving back all the manure that is made from it, with careful attention, will be prepared for another 60 bushels of corn.

The value of products on five acres at the lowest computation cannot be less than \$109. The cost of cultivation at one dollar per day would be \$54.50, or half of the product, which deducted from the whole value of

products would leave \$54.50, or \$10.90 per acre for the use of land. The annual products of 40 acres, upon this calculation, would be worth \$872. The cost of cultivation at one dollar per day would be \$436, which deducted from the whole amount of produce would leave \$436, or \$10.90 per annum for the use of land. This calculation, however visionary it may appear at first sight, is founded on facts and principles which every practical agriculturist will acknowledge to be correct.

The great benefits of this plan are, it proposes a system; and all must acknowledge that system in agriculture is as necessary as in any other business. It gives a proper variety to our agricultural productions. It recommends a more particular attention to the root crop, which is one essential item in a system of good husbandry. It gives a more equal division of labor through the season. It would save much labor in making and supporting division fences, which on this plan would be unnecessary. By this system, every species of noxious weeds, even the Canada thistle, would be eradicated, and the amount of labor would be greatly diminished, while the amount of agricultural products would be increased. *Homer, N. Y.* *JESSE IVES.*

#### POTATOES.

**MESSRS. GAYLORD & TUCKER.**—You no doubt recollect the experiment I submitted to you through the Cultivator and Farmer, volume 2d, number 4, with the Mercer, Yam and Rohan potatoes. My sole object then was to show that the Mercers and Yams were as productive as the Rohans. In planting the same kinds again, giving them all an equal chance, I find the Yams far superior to any I have ever raised, not excepting the Mercers, though I have always been very partial to the latter, and considered them the best for culinary purposes and for feed; but I find by an experiment last year, that the Yams are far superior on several accounts. 1st. They out yield all other kinds I have ever raised; they are very seldom hollow or pithy as, according to my experience, the Mercers are very apt to be. 2d. They are a much firmer potatoe, and will keep better through the summer than any I ever had.

I will now give you my experiment last summer, which I consider a pretty fair one, if we make allowance for the unfavorable season for the potatoe crop. The land was a clover sward, plowed in the fall, and manured the next spring at the rate of about twelve wagon loads to the acre. My seed potatoes were all cut, and calculated to have but one eye on a piece. I planted three pieces in a hill. The ground was all nearly alike, except about half an acre in one corner that was wet, which I made no account of. In the first place, I planted twelve rows of Mercers. One way they were about three feet apart, and the other way about fifteen inches apart, as near as I could get them. We plowed them through only one way. There were about two hundred and twelve hills in the rows one way. Next, I planted six rows of Yams, and next to them twelve rows of Black potatoes, and next to them six rows of Rohans, and next to them I planted a variety of kinds mixed together, such as Door Yards, English Whites, Kidneys and Pinkeys. They were all tended alike, and I saw no reason why one kind should be better than another, unless the difference might be in the different kinds of seed. When I dug them, I found the result as follows: The Mercers gave, on an average, one bushel from eleven to thirteen hills; the Yams, a bushel from eight to ten hills; the Black potatoes, a bushel from thirteen to sixteen hills; the Rohans, a bushel from twelve to fourteen hills; the other mixed kinds, it took about sixteen or eighteen hills to make a bushel on an average. Thus you see a large balance in favor of the Yams. Some may ask why I did not plant as many rows of Rohans and Yams as I did of other kinds? In answer to that, I would say in the first place, I had not seed enough of the Yams. All the seed I had of them I raised from twelve potatoes the year before; and in relation to the Rohans, I planted no more of them, because I considered them inferior to some of the other kinds on several accounts.

The Yams are a new kind of potatoe to me. I have raised them only two years. I know nothing respecting their origin. A friend of mine gave me twelve of them in the spring of 1840. The result you have in the above named number. I believe he got the seed in the city of New-York, though I am not certain. He told me they yielded excellently with him, and he extolled them very much.

As the Cultivator opens away for the introduction of new articles in the agricultural line, I beg to avail myself of its agency for this object. An objection may be raised against the color, which is externally of a beautiful purple, with about two-thirds of the inside answering to the exterior, which is no less escent than the whiter portion. When cooked, they are very dry and mealy; and when "mashed," nearly answer to white, though rather of a purple cast, and are not surpassed by any other kinds I have eaten. One thing I had like to have forgot to mention. They are almost worth cultivation for the beautiful flowers they produce: the tops and flowers being different from any I ever saw. I think they deserve the attention of agriculturists in every part of the union.

I shall have fifty bushels or upward unengaged, which I shall dispose of as they shall be called for, on the opening of the spring navigation. I shall be pleased to forward you, gentlemen, a box containing a sample of the Yams for your inspection.

*Fallsburgh, N. Y., March 1842.*

*SOLON SMITH.*

#### ENGLISH BREEDERS.

**MESSRS. EDITORS.**—As guardians of the public interests, connected with agriculture and its kindred branches, I beg leave to call your attention to the fact, that through the columns of the Cultivator and otherwise, the idea has been industriously circulated, and to some extent has gained credence, that "by some kind of witchery or other," Mr. Bates, of Kirkleavington, England, has not only succeeded in obtaining the very "ne plus ultra" of Durham stock, but that, like patent medicine, none genuine are to be had of any one else, whatever their origin, character or appearance; and while I admit Mr. B. has some good cattle, particularly that his Dutches family are so, I cannot admit that others have not as good, or that excellence can be found concentrated and confined to one man's yard, where so many gentlemen of fortune, taste, education and judgment have (father and son) for so long a period given their attention to the subject, and made the cattle of England what they are. It is true that reliable excellence is confined to such as have done so, and that they are comparatively few; yet no one or dozen individuals may arrogate to him or themselves the distinction, and to suppose the contrary necessarily involves a violation of all the laws of consanguinity; and neither Mr. Bates or his friends will claim notoriety on that ground. They do indeed claim that breeding in and in may be to some extent and under certain circumstances safely adopted; but to show that Mr. B. is not entitled to his celebrity by the adoption of such a system, it is only necessary to look at his practice. His cow "Oxford," (which brought him her full share of it), so named in consequence of her having taken a first premium at Oxford, where very few Durhams were shown, and in the vicinity of which not more are raised, was the produce of Matchem, bred, not by Mr. Bates, but by Mr. Brown, of whom he purchased her in 1832. Her sire was the Duke of Cleveland, got by Mr. Whitaker's Bertram 1716, to which, in 1830, his dam, the Dutches, was sent by Mr. Bates, with five or six others.

With "Matchem," Mr. Bates bought 16 other cows and heifers, for all which he paid £157—less than £10 each; and though for no inconsiderable part of his modern celebrity he is indebted to this stock, not bred by himself, nor the result of any peculiar system, yet the aggregate price paid, (and it may fairly be supposed to be some evidence of merit,) was less than that frequently paid by a spirited breeder for a single animal. At Mr. Dodd's sale in September, 1840, 38 of the descendants of Waterloo 2816, and Belvidere 1706, (from which were Mr. Bates's 1st and 2d Dukes of Northumberland,) sold for an average of less than £45 each, while at Mr. Collins's sale in September, 1839, 15 of the descendants of Mr. Whitaker's Frederick 1060, from 3 months to 5 years old, brought an average of £99, 12s. each; and at Castle Howard in the same month, 9 of his Fairfax 1023, brought an average of £95 each; 14 of his Belshazzar 1704, an average of £67; 12 of his Roekingham 2550, an average of £63; and 12 of his Marlboro 1189, an average of £106 each. And I have now by me catalogues of the sale by the Rev. John Higginson at Dishforth, in September, 1841, of that by Mr. Benj. Willson at Brawith, and of that by R. M. Jaques, Esq., near St. Trinians, both in the same month, and all showing about the same results as do the comparisons above made; and yet I have no doubt, were it in my power to institute others still, the relative complexion might be in some measure changed; for Mr. Bates is a very respectable breeder, and my object is not to disparage his stock, but only to show that it is not beyond comparison in England; and I ask if the representatives are so in this country?

I have stated that Mr. Bates's cow Oxford took the first prize at the show in Oxford; and will you allow me to compare with this Mr. Whitaker's Miss Fairfax, which also took the first premium at the great show in Leeds in 1839, and was declared the best cow ever seen in England; and that her son, Sir Thomas Fairfax, carried the first prize the next year at the great Northallerton show, beat the Clementi at a match of 5 guineas a side, and has never been beaten. May I also call your attention to the following notice of the Sir Thomas Fairfax in the 2d number, 16th volume London Farmers' Magazine, (where a fine likeness of him is given,) and where it is said that "he was sold by Mr. Whitaker to F. H. Fawkes, Esq., of Farnley Hall, and while in his possession obtained the following premiums, viz: as the best 1 year old bull at Otley in August, 1838, 3 guineas; as the best 2 year old bull at Leeds in September, 1839, 20 sovereigns, (at the same time he won a match of 5 guineas against Mr. Tempest's celebrated bull, Daniel O'Connell, which obtained the first prize as the best bull of any age at the above meeting;) and that at the Yorkshire agricultural society's meeting at Northallerton, (where he beat Clementi, as before spoken of,) in August, 1840, the first prize of thirty sovereigns, as the best bull of any age there, was awarded to him." The opinion is also confidently expressed, that if he had appeared as a competitor at the meeting of the Highland Society at Berwick he would have won the first prize; and yet for the bull that did take it, "Buchan Hero," Mr. Whitaker paid £200, and could have had £100 advance after the award was declared, and as much advance on the last price paid for Sir Thomas, has been offered his present owners and refused.

*Albany, April, 1842.*

*E. P. PRENTICE.*

**FINE SHEEP.**—Twenty one fat sheep were recently exhibited in Philadelphia, by Philip Reybold, Esq., of Delaware, whose weight averaged 214½ lbs. each.



## SUGGESTIONS FOR CULTIVATORS.

**EDITORS OF CULTIVATOR.**—To Mr. Bridgman's work on gardening is appended a circular to the people of the United States, detailing in part an application to the national legislature for a sum of money to be appropriated for promoting "an improved system of terra-culture." What his system is, I do not propose to inquire, neither do I wish to know; but the reading of that article has induced me thus to point out what I have noticed as an error in the culture of plants and trees, wherever I have been, and I know no better plan to illustrate it than in showing the effect of the error on corn. In the culture of corn, it is usual to work the crop till the tassel is about to make its appearance; this is an error. Whenever the lateral roots of a plant are injured, moved or disturbed, when the stalk that is to produce the seed is matured or about maturing, or whenever those roots are covered to a greater depth at this stage of growth than nature intended, it will produce early maturity and decay; and the yield will be just in the proportion to the extent of the error. If you will take the pains to destroy the lateral roots of a stalk of corn after its having made the last joint on the stock, you will find that it will produce no corn; and if you will displace their situation at this time by hilling, you will get a less quantity of seed than if left alone. If the lateral roots of a stalk of clover are cut off when the seed stock is forming, there will be no seed; and just so with other plants and trees; and the working of them at this stage cannot be attempted without injury. Yet, strange to say, it is almost invariably done. I have never suffered my corn to be worked after one-third of the height of the stalk was attained. I plant close enough to have the corn to shade the ground at this height, so as to prevent the growth of weeds after this last working. I plant two and a half feet square, and leave two stalks in the hill, and I have never missed having as much corn per acre and as large ears as my neighbors; and much more than some of them. I never planted a crop of corn that I had not some kind neighbor or friend to tell me that I would have neither corn nor fodder. Last spring a cropper upon my neighbor's farm planted thirty-five or forty acres in corn, and I about ten acres; our fields adjoining. He planted his corn four feet square, and left three or four stalks in the hill, and worked his crop till it was ready to shoot into tassels. I quit working mine when about 2½ feet high. His field was full of weeds and grass. Mine remained clear of both weeds and grass. When our corn was husked and housed, he told me that I had from my ten acres nearly fifty bushels of corn more than he had from his thirty-five or forty acres, notwithstanding he told me in its early growth, that I would have no corn. Part of his ground was quite as good as mine.

I have digressed somewhat from my subject, and to return, I would here notice that Mr. Bridgman's remarks on deep planting cannot be too closely attended to; and a similar and worse effect is produced in the hilling or working of plants in the latter stage of their growth, than takes place in plants and trees when deep planted. A disease is produced that hurries the plant on to early maturity by impeding the proper nourishment, by disturbing or placing the roots below where nature intended they should range for food, as well as depriving the vessels of the stalks thus covered from performing their functions. The stalks being established, it is folly for man to attempt to do that which God alone can do, deep planting and plowing the peach orchard after the trees have attained sufficient maturity to produce fruit, or if not wholly, the principal cause of the disease called the yellows. By plowing, the lateral roots are either cut, disturbed, or forced to seek food apart from where nature intended, and thus operates as a hill placed around plants, and brings the tree to early decay. To conclude this subject for the present, I will say, work your plants and trees while young, so as to form good stalks, and then trust to that all-wise disposer of events to perfect them.

I think I noticed a remark in your paper of the roots of the water melon being attacked by small animalcules. Some salt added to the hills before planting will remedy that evil and give you better fruit; and salt and saltpetre sown in the peach orchard, (particularly where the orchard is worked with the plow,) will assist in preventing like depredations to the roots of the peach tree. If you think that this hasty notice will be of any service, you are at liberty to dispose of it as you think best, and be assured that I seek neither money nor thanks for performing duties we owe one to another.

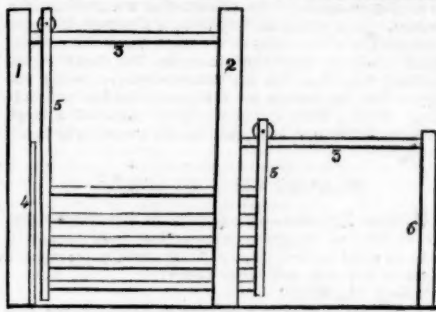
LYTTLETON PHYSCIK.

N. B. I should like to extend my remarks, to compare the above with the animal creation; but my present state of mind and body will not permit me to make more than this remark, that inferior animals from instinct are known to partake of certain kinds of plants and vegetables, and reject others. Now confine one of these animals to a single spot, and put before him the plants he rejects when running at large, and rather than die of starvation he will eat some of them, which in the end will be like the plant or tree that has been abused by its guardian, die with plenty before him.

L. P.

Ararat Farm, Cecil Co., Md., March 31, 1842.

\* Our correspondent seems to have misapprehended Mr. Bridgman's circular. It was not Mr. B. who petitioned Congress for pay for a discovery in "terra-culture," worth more than all the discoveries of the age combined—the application of steam not excepted, but another individual, to whose pretensions Mr. B. is opposed.—Eps.



A FARM GATE—(Fig. 55.)

**MESSEURS. GAYLORD & TUCKER.**—Accompanying this is a rough sketch of my plan for a gate. You will at once see that it is on the rail-road principle; and for that reason I think that it will go ahead. I think that this gate has many advantages over any that I have noticed. It makes a firm and lasting gate, with less expense than any that I have seen. It saves at least half an hour shoveling snow every morning after a snow storm; it plays easily, and is not liable to get out of order. However, the gate will show for itself, and I will occupy no more of your invaluable paper, save a description.

1, gate post 4 by 6—2, do., with a mortice, the same as the height of the gate—3, rails for the gate to roll upon—4, two slats nailed on to post, four inches apart inside, to keep the gate from being pushed either in or out when shut—5, 5, upright posts to gate, 3 by 4, with a mortice in the upper end long enough to admit the rail and a cast iron or hard wood pulley 4 or 5 inches in diameter, upon which the gate hangs—6, is a post set beside the fence merely for the purpose of morticing the rail into. The dimensions I have not given you, as they may be built of any size required.

M.

Onondaga Co., Dec. 9, 1841.

## NOTES UPON ARTICLES IN THE FEBY NO.

**STYPTIC.**—One of the most efficacious that I ever tried is common gun powder, reduced to a very fine powder and applied to the wound. The ingredients composing that article appear to be in the proper combination to have a speedy and good effect. It is better than puff ball, and more easily procured at all times. I have known it applied so as to reach a deep wound, (the cavity where a tooth had been drawn for instance,) with the best effect, by putting a little of it in a quill and forcing it into the wound by blowing.

**MAKING PORK.**—Mr. Cornell, (page 33,) says he cannot make pork at \$3.50 per cwt., with corn at 50 cents, potatoes 20 cents. But if all should cease making pork under these circumstances, pork would rise and corn would fall. What is the remedy? for we want to know out here in the West, being in just such "a fix." The price of pork at Chicago this winter has been from \$1 to \$2.25. A great portion of the hogs being of the land-pike variety, being great consumers and small porkers, I do not think they have averaged more than \$1.50 per cwt. Corn in the same market, 60 pounds to the bushel, 25 cents. Oats, 18. Potatoes, I cannot say what at Chicago; but here, 40 miles from there, plenty at 12½ cents; and corn, 16 cents; oats, 14 cents. Now at these prices, I am confident that every man who has put his grain inside of these long legged, lantern jawed swine, has lost money. But—and here I am "stalled." If it had not been for this immense "waste of grain," could it have been sold, even at these prices? It certainly does appear to me that it would be a beneficial remedy to have a better breed of hogs more generally diffused through the country.

And I too am certain that we never shall be wiser by reading of such experiments as Mr. Cornell alludes to; but we should be wiser if several gentlemen would take a lot of pigs and measure and count the cost of every article of food from weaning till butchering time, and give the result to the public, as to the breed, age, cost, weight, &c.

I suggest to agricultural societies to offer premiums for such detailed experiments. It would be far more beneficial than it would be to publish to the world that Mr. Prentice owned the best bull or the best boar at the fair, while at the same time everybody knew that Mr. Stay-at-home had a much better one that was not there, and consequently could not get the premium. Let the premiums be—not for the biggest bull, for if that was not a bull, it would be a boar; but let them be for those who produced the most beneficial and useful examples for their fellow citizens to follow. In this way we would soon learn how many bushels of corn it took to make a hundred of pork, instead of hearing how much more an old sow weighed after she had drunk a bucket of swill than she did before. We want more facts and less puffing.

**A STONE SCRAPER.**—When I was a boy and lived in stony Connecticut, I used to have the back ache and sore fingers, "picking up stones." And as it was always considered an "endless job," I suppose they are not all picked up yet, particularly as there was when I left them a great many small ones; and since then, I have seen a great many small men grow into large ones, (in their own opinion.) I don't know but some of those small stones have grown large enough to be operated upon by that stone scraper described by Mr. Bowman,

(page 34;) and for the benefit of some of those Yankee boys' backs and fingers, to say nothing about the sythes and consequent grindstone turning, I want some of them to try that scraper, and see if it will answer to pick up stones with; because if it does, I know my name will be blessed by the rising Yankee generation for making the suggestion for their especial benefit. I would try it myself; but as a matter of geological information to those same Yankee boys, I will inform them that out here on the prairie, they couldn't find pebble stone enough on a thousand acres to make a "right smart chance of a sizeable sort of a stone heap."

**"CREAM POT CATTLE."**—It is with feelings far from being allied to pleasure that I read the result of the sale of this stock of cattle in friend Eement's letter, (page 36.) Hundreds of far less valuable cattle have been imported at great expense. "Far fetched and dear bought," is all the recommendation required by some. Alas, for my worthy old friend, Colonel Jaques; his stock was "domestic manufacture;" and who would purchase that in these anti-tariff times? I knew the colonel was embarrassed, and I deeply regret to hear that he has been sacrificed too. His efforts to do good were worthy a better fate. I am at this time in good health, and as comfortable as could be expected, in one of the muddiest winters that you ever saw. If I do not get stuck fast, you will again hear from

SOLON ROBINSON.

## SETTING GATE POSTS.

**MESSEURS. EDITORS.**—As I was about sitting a gate post, the Cultivator came from the office; I sat down to peruse it, and east my eye on an article giving directions how to set posts. The writer says: Dig your hole something larger than your post; then take water lime and sand, make it into mortar, pick up small stones, throw them into it, set down your post, take a shovel and throw in your mortar, fill up the hole and let it stand until it gets hard before using. It struck me that it was an improvement; but after a little reflection, I thought I could improve upon it. I therefore set down my post, which was 8 by 10 inches, gathered small stone, filled up the hole with them, made my mortar so that it would pour, filled the hole a little rounding with it, so that no water could stand near the post; smoothed it off, let it stand two or three days, and hung my gate, where it has been two years as firm as the tree before it was cut down, in a solid body of cemented stone two feet square. As water lime is an article that but few people keep by them, I would say that I have no doubt but mortar made of common lime and sand would be a great improvement in preserving the post as well as keeping it firm.

Gahway, Saratoga Co., N. Y.

P. OTIS.

## PRIVET FOR HEDGES.

**MESSEURS. EDITORS OF CULTIVATOR.**—Seeing an inquiry in your March number, requesting information regarding the privet, (*Pyracantha*), for live hedges, we would inform your correspondent, Mr. Long, that the late Jesse Buel tried the common privet on a small scale, more for ornament than utility, as a fence, and found it to succeed remarkably well; retaining their verdure almost entirely through the winter, and being susceptible of being trimmed in any shape, to suit the taste of the most fastidious. We presume they would not be sufficiently stout for preventing cattle or swine crossing them.

We would inform Mr. Long, that the plants of the common privet may be obtained of the undersigned, at the Albany Nursery and forwarded to any part of the country. The wholesale price is \$3 per 100 plants.

Albany Nursery, March 14.

JESSE BUEL & Co.

## KEEPING HORSES ON SALT HAY.

**MESSEURS. EDITORS.**—I observe that you have of late devoted considerable space in your paper to the treatment of that invaluable animal, the horse, and I would mention that at the suggestion of several of my friends I have this winter fed mine with salt hay, and found that their wind and power of endurance was greater, and that they had less of what is called by farmers the hay-belly. They are also exempt from the cough which feeding on fresh hay, particularly clover, from the great amount of dust it produces, is very apt to produce. I am very well pleased with the result, and think those farmers who have such hay will find the benefit of keeping their horses upon it more exclusively.

A. W. L.

Hempstead Harbor, Feb., 1842.

## TO BEAUTIFY THE COUNTRY.

WE have received from A. Bergen, Esq., a paper on this subject, in which he urges the propriety and utility of decorating our farms, grounds, &c., with trees, shrubbery and flowers, as contributing both to pleasure and health. We regret that a press of matter this month prevents our giving more than the closing paragraph.

"I say, then, that any man who is blessed with a comfortable dwelling and a few acres of land, can do much to embellish his home without intruding much on his daily business, and with very little expense. Trees he may get out of the forest, or raise fruit trees from the seed. Shrubby and flowers he can multiply from a few sprouts and seeds; besides, if he has a family growing around him, how much more will they be attached to, and love their home. Let no man, therefore, say he cannot do this or that; but merely let him try, and he will soon find that he can accomplish wonders."

## Answers to Inquiries, &amp;c.

## DYNAMOMETER.

"EDITORS OF THE CULTIVATOR—I would be much obliged to you if you would furnish in an early number of your paper a description of the dynamometer, together with the cost of it, and where it can be obtained. The planters of this part of the country usually have their plows made on the plantation, and it would be very useful to us to ascertain the draft or power which is required in using such plows as we have, or in making alterations and improvements in them. H. O. F. Montgomery Co., Ala., 1842."

We have some cuts of the dynamometer in the hands of the engraver, but are unable to answer the inquiries of our correspondent as to prices, and place of procuring them. Perhaps some of our makers of plows, or others, could give the information asked. If so, they would confer a favor by forwarding it to us.

## INSECT IN WHEAT.

EDITORS OF THE CULTIVATOR—As late as November 25th, I sowed two acres with four bushels of red bald Canada wheat, and before it came up we had several hard frosts. On the west end of the lot an insect has attacked it, which has caused the leaves to have yellow and red spots. The easterly end is entirely free. The fly is a small black fly. What is singular is, that a neighbor's wheat has been attacked in the same way; the eastern part is not touched. Is this the ichneumon fly? Outland cottage, South Hempstead. JOHN HAROLD.

We are inclined to think the fly will prove to be the Hessian fly, but it may not. We shall look with great anxiety for Dr. DeKay's Entomological Report, in which we trust the depredating insects will be fully described. At present, there is too much conjecture, and too little certainty respecting most of them.

## CORN WORM.

MESSRS. GAYLORD & TUCKER—Can you, or any one of your correspondents give us Illinoisans any information respecting what may be called the corn worm. About the time our corn began to form on the cob, this worm, of a dark slate color, from one-fourth to seven-eighths of an inch in length made its appearance on the ear under the husk, having ground a hole in them to pass through, and continued to eat till the frost killed them. Sometimes six or eight were found in an ear. They were more injurious to late than early planted corn. Now whether this worm came out of the soil in its perfect state, or was deposited by a fly as soon as the corn began to ear, is a query to me. Is there not something to prevent their depredations? And if so, you would oblige many by making known a remedy. Brinkville, Ill., 1842. J. A. P.

We have never noticed or heard of the worm of which J. A. P. complains in this part of the country; and its history is to us entirely unknown. We had some complaints last year from the South and West respecting it, and if any of our correspondents can throw any light on this new depredator, we shall be happy to receive it. That it is the product of a moth, seems most likely; but of what kind, or what its parentage actually is, remains to be discovered.

## CULTURE OF HEMP.

Our correspondent at De Kalb, Ill., will find his inquiries as to hemp, the proper soil, culture, &c., fully answered in the present number. We agree with him that it may be profitably made to take the place of part of the corn crop of the West, and that the interests of the nation demand more attention to this culture.

## THE HORSE CHESTNUT.

Our friend A. Bergen, of New-Utrecht, L. I., informs us that in 1839 he planted a small piece of ground, previously plowed and mellow, with nuts from the black walnut and the horse chestnut in alternate rows. This was done in the fall; and in the spring they both came up finely, the chestnuts starting first. In the growth, the walnuts have far exceeded the chestnuts, although the latter have been manured; but it seems to little purpose, since while some of the walnuts are seven feet high, the chestnuts are not more than seven inches; and he requests us to account for this singular difference.

We know not that we can do this satisfactorily, having never attempted the cultivation of the horse chestnut; but we do not hesitate to ascribe it to the proximity of the black walnuts, and their sinister influence. Every one is aware of the fatal effect which the common butternut, (*Juglans cathartica*), has on all trees, so decisive indeed, that in our forests not a tree or shrub is ever found within the spread of its branches; and the black walnut, (*Juglans nigra*), possesses many of the same qualities. The soil too in which the nursery of Mr. B. was planted may not have been without its influence. The horse chestnut is well adapted to light lands, and thrives well on such, though they may be rather sterile, while in heavy clays it is always stunted and unhealthy. The black walnut on the contrary grows best in a strong, stiff soil, and rather moist than dry. The horse chestnut has large leaves, and requires more than the usual space to receive the necessary supply of air and light. All these causes may have had more or less influence; but

it is to the presence of the walnuts that we attribute the mischief. In a young nursery of thrifty locusts, in order to occupy the whole ground, we three years since transplanted seedling butternuts between the locust rows. The result has been, that the butternuts have grown rapidly, while the locusts have scarcely the last year advanced at all. This spring we have removed a large part of the butternuts, and presume the locusts will again go ahead.

## MANURE FROM AN ACRE.

"MESSRS. EDITORS—In addition to the queries you were so kind as to answer in your last Cultivator, will you be so good as to inform us what quantity of manure one ton of hay will ordinarily make? J. A. S. Reading, Vt., 1842."

We are unable to give a definite reply to the question of J. A. S.; but will furnish some data that may assist him in forming an opinion as to the quantity. In the General Agricultural Report of Scotland, volume 2d, Dr. Coventry has given an estimate of the manure an acre of land in good condition, or such as will yield 28 bushels of wheat, or 50 of oats, in the following crops, would give—

"By clover, grass, or herbage, hay, &c., first year, 6 tons. By clover, if mowed, second year, ..... 4½ do. By white or corn crops, as wheat, barley, &c., ..... 4 do."

Mr. Youatt had a dragoon horse fed one week separately for the sake of experiment, exercising him one hour a day. The food converted into dung each day was as follows:

Oats, each day, 10 pounds—one week, 70 pounds	
Hay, do. 12 do. do. 84 do.	
Straw, do. 8 do. do. 56 do.	

He drank within the week 27 gallons of water; and the loss of dung while on exercise was computed at 4 pounds per day, or 28 for the week. The total forage consumed was ..... 210 pounds. Dung and litter produced, ..... 327½ do. yielding, if the lost dung be added, with the addition of the moisture imparted by the urine, an increase of two-thirds beyond the solid food.

Arthur Young states that the winter stock on his farm, consisting of six horses, four cows, and nine store hogs, consumed 16 loads of hay, with 29 loads of straw for litter, and the usual quantity of oats to the working horses, and produced 118 loads of 36 bushels each of manure. In another trial, 36 cows and four horses, when tied up, ate 50 tons of hay, and had twenty acres of straw for litter, with which they made, 200 loads of dung in rotten order for the land. In this case, the weight of the straw and manure is unknown.

## INQUIRY—YIELD OF CORN.

"MESSRS. EDITORS—Farmers frequently disagree as to the best kind of corn to plant, the twelve or the eight rowed; and which will yield the most per bushel of ears. If you have the means of giving us a little information on this subject, you will confer a favor on more than one CORN GROWER."

A few years since we made several experiments on the comparative product of several varieties of corn on the cob, from which we arrived at the conclusion, that there was very little difference if any in this respect; that varieties with large cobs or a greater number of rows, gave more shelled corn per ear than varieties with smaller cobs; but that the average of corn in both would be about the same. There is a decided advantage, however, in the small cob varieties over the large ones in ripening quicker and more completely; an object of great consequence in places where it is necessary to give corn every facility for maturing. Mr. Colman has, in his 4th Report, recorded some experiments which in part at least confirm the opinions we have advanced. A condensed statement is all we can give of his remarks. Half a bushel of eight rowed corn in the ear, very sound and well cured, weighed, ..... 25 pounds. Half a bushel of twelve rowed corn in the ear, not so well cured, weighed, ..... 24½ do. Half a bushel of eight rowed, shelled and measured, 1 peck, 3 quarts. Half a bushel of twelve rowed, shelled and measured, 1 peck, 3 quarts and a fraction. Half a bushel of the cobs of the eight rowed weighed, ..... 4½ pounds. Half a bushel of the cobs of the twelve rowed weighed, ..... 4½ do.

Of two of the best ears of each sort carefully selected, the butts were shaved close to the kernel, and then the corn being shelled, both cob and grain were carefully weighed. Of the two ears of the eight rowed, the grain weighed 8½ ounces—the cob 1½ ounce. Of the two ears of the twelve rowed, the grain weighed 13½ ounces—the cob 2½ ounces. Thus in this case the proportional weight of the grain to the cob is the same; and this, we believe, with Mr. Colman, will be generally the fact.

A peck of the corn experimented upon was shelled, well shaken and struck, and the kinds weighed as follows: one peck eight rowed weighed 17 pounds, or 68 pounds to the bushel; one peck twelve rowed weighed 16½ pounds, or 65 pounds to the bushel. This difference Mr. C. attributes to the greater ripeness of the first variety.

Answers to several other inquiries will be given in our next.

## Veterinary Department.

## DISEASES OF THE FEET IN ANIMALS.

MESSRS. EDITORS—With your leave I wish to present my views of a question of much interest to the farmer—the origin or cause of those diseases of cattle or sheep known by the name of hoof-ail, foot-rot, &c.

The horse has on his leg what is called the *scab*, through which exudes a glairy matter, and this process seems necessary to his health. The hog has holes on the inside of his legs through which you know it is said the devil enters swine; but he will not be so confined, for we know, if the holes be stopped, the animal sickens and dies; at least, it is so with our poor stock here, the Landpikes and Alligators. May it not be he desires to leave them at pleasure to enter some of Mr. A. B. A.'s Aristocrats? Nor should we be much surprised if the aforesaid personage should enter some of his thin skinned poultry lately imported, through what the Tuckahoes call the oil bottle.

That long toes, or the friction of long or short grass between the toes of sheep should produce the foot-rot, or that this disease is at all contagious, I cannot deem founded in fact. Cattle have neither scab or oil bottle; but they have holes just below the false hoofs or hinder claws where they may be found; and they use their tongues to keep them open, when the muck or litter through which they go is not so offensive as to prevent them. It seems to me the stoppage of these might have produced the epidemic complained of near Troy, and the disease of Mr. Merrick's calves. If so, to have washed their feet in clean water, and driven them to dry, high and clean pastures, opening the holes of those complaining, and giving them a little spirits of turpentine, observing to pour some in the cleansed orifices, might have been a good prescription.

About the edge of the hair, and within the cleft of every sheep's foot, a duct or hole of this kind may be found. Now if this hole gets stopped, it suppurates, and a diseased foot is the result. Unstop it, and move your sheep on to hard land—not leaving the well ones; for the cause that effected the one will the others, if not removed. If there is much disease among them, make a compound of equal parts of finely pulverized rosin, salt, and flour of sulphur. Give them a little of this frequently, minding to keep the holes open, and I trust no one will find it necessary to cut away all the tough and hardened skin on which the animal needs to walk, and then trying to force these exudations from their natural channels through the sores made by means of balsams and plasters. J. LAWRENCE.

Jefferson Co., Tenn. 1842.

Note.—We were not aware that cattle possessed the excretory ducts spoken of by our correspondent; nor in any work on cattle do we find any mention made of such an apparatus for forcing matters from them which if retained would be injurious to the system. In the other animals named, they are obvious enough, and their uses are too plain to be disputed.

## STAGGERS IN HORSES.

"MESSRS. EDITORS—Permit me to give you the result of a remedy for the staggers in horses, used by Mr. Wesley Gray of this county. He makes a crucial incision thus + from two to two and a half inches in the forehead of the horse down to the bone, dissects up the angles, and introduces a tea spoon full of pulverized cantharides; the skin is brought over and confined by stitches. In a few hours the flies begin to inflame the part, a copious flow of mucus from the nose ensues, and the symptoms of the disease abate. A deep sore is formed, the after treatment of which consists in occasional cleansing by warm soap suds. Mr. Gray has succeeded in curing several horses by this method; and as the experiment is easily tried, and if opportunity offers, I trust some of your numerous readers will repeat it, and report the result in the Cultivator.

Brandon, Miss., 1842. YEOMAN OF THE SOUTH. The staggers is one of the most fatal diseases to which the horse is subject, and we thank our correspondent for a remedy which promises relief. Veterinarians divide staggers into two kinds; the stomach staggers, and the mad staggers. The first arises from over feeding, eating too great a quantity of food, or food of an improper nature. In removing this disease, the stomach pump has been within a few years used with much success; clearing the stomach and affording speedy relief. Before the adoption of the pump, stomach staggers was rarely cured. Unless removed, the disease effects the brain, that organ becomes inflamed, and blind or mad staggers ensues. In either of these diseases, or any stage of them, bleeding rapidly and in large quantities, with the exhibition of physic, has formed the most probable means of cure. When inflammation of the brain has ensued, or as a preventive to such a result, the remedy used by Mr. Gray appears to us very proper. The exhibition of physic at the same time would doubtless add to its efficacy.

## CURE FOR THE BLACK TONGUE.

Burn alum, powder it fine, and apply it to the tongue of the animal two or three times, and he is cured. Walnut Grove, N. Y., Feb. 14, 1842. D. Y. O.

For remedy for Blackleg in Calves, see Letter from Scotland, p. 84.



## The Garden and the Orchard.

## THE SMALLER FRUITS.

AMONG the smaller fruits, may be classed the Strawberry, the Raspberry, the Currant, the Gooseberry, and the Grape. Independently of their delicious qualities, they possess one eminent advantage; they generally come into bearing within a year or two after being transplanted, which is a matter of some consequence to those who are commencing the culture of fruit by planting entirely new grounds. Most of them, also, are earlier in season than the larger fruits, and the crops are less liable to failure from frost or other accident.

The Strawberry stands inferior in importance to none. Its cultivation is as easy as anything which grows in the garden. Among some of the best varieties are,—the Austrian Scarlet, or Duke of Kent, which is the earliest, the Roseberry; and Keene's Seedling. The red and white Alpine possess the peculiar advantage of bearing the season through. I have partaken of a freshly picked dish of them on the first day of winter. Hovey's new seedling appears to be a variety of extraordinary excellence. The high price (two dollars a dozen) will prevent many from obtaining it this year.

Any good rich soil, whether heavy or light, is well adapted for strawberries. They may be transplanted in spring, or in the latter part of summer. A common practice, after the beds are planted, is to suffer them to run wild and cover the whole surface; and this affords tolerable crops with little or no care. But a much superior way is to plant them in drills, at such distance as will admit a narrow cultivator to pass between; and it will be found that the free space they thus have, and the cultivation, with the occasional dressing of manure which they may receive, will much increase their quality and productiveness.

The Raspberry, preferred by some even to the strawberry, is also of very easy cultivation; the chief reason of the want of success with some gardeners, being the want of pruning. When the stems are suffered to grow in dense bundles, none but imperfect crops can be expected. Early in spring every root should have all the stems cut off at the ground, except three or four of the most vigorous, and the tops should be pruned down to about three feet in height. Any rich garden soil is adapted to their cultivation; and it should be kept clear of weeds and grass by frequent hoeing.

The White or Yellow Antwerp is considered by most as the finest variety in cultivation. The Red Antwerp is also excellent, though it often bears very scantily, solely from the want of pruning. The American Red, and American Black are fine varieties, and doubtless might be much improved by cultivation.

The Currant, so well known to every one, is generally rated lower as a fruit than its pleasant flavor, great productiveness, and hardiness, entitle it to be. It is scarcely ever cultivated in this country, but merely permitted to grow by sufferance. Pruning and hoeing would be well repaid by the improved quality of the crop. When bushes are to be raised from cuttings, all the buds should be removed except a few at the upper extremity; this will prevent suckers. Every currant bush should have a single clear stem, at least six inches above ground.

The principal varieties are the red and white. These have been improved by careful cultivators, and deteriorated on the other hand by continued neglect. The small varieties should be rejected, and their place supplied with those which are larger and improved.

The culture of the Gooseberry has received abundant attention in England; but the course pursued, and the varieties raised there, have not succeeded so well in this country. The same general remarks apply to the cultivation of this fruit, as to the currant. Disappointment often results from the large English varieties, which are not only of inferior flavor in most cases, but scarcely ever escape mildew. There are some smaller fruited ones which are well adapted to this country; but by what names they are known, is uncertain.

The Grape is a valuable fruit, though ripening at a season when the peach, apple, plum, and nectarine, are in their full splendor. Much has been said on its culture; but the chief requisites are, a deep, loose, fertile soil, frequent cultivation, and proper pruning. Among the best varieties are,—the Isabella, which for hardiness, great productiveness, and sweetness of flavor taken together, perhaps stands unrivaled; the York Madeira, earlier, hardier, and possessing less of the musky taste than the Isabella, to which it is preferred by some; and the Catawba, a large, beautiful, productive grape, but not equal to the other two in flavor. The Bland is a fine grape, but our seasons are usually too short for its thorough ripening. These are all hardy American. Among exotic grapes, the White Sweet Water is most admired, and is of most delicious flavor. The vines, however, require renewing every four or five years, to prevent mildew; and require laying down every autumn to avoid destruction from frost. But this renewing is no more labor than the yearly planting of corn and potatoes; nor the laying down than the autumnal harvesting of these crops. Yet many consider it so grievous that they are entirely deterred by this alone from the cultivation of this fine variety. The Malvois is a smaller grape, but even more exquisite in flavor. The Burgundy, (Black Cluster, or Black Orleans), is a very good exotic grape, and has the singular advantage over most other exotics, of being quite hardy; at least, it is so in Western N. York. Long and minute directions for the cultivation of the

preceding fruits often afford many useful hints; but, on the other hand, they bewilder new beginners in the business, who perhaps have but comparatively little attention to spare from the crops of the farm. To such beginners it may be recommended, to use the same care, and apply the same principles to the culture of fruit that they do to the raising of corn, and success will follow. Corn will not bear its crop if suffered to grow too thick, if overrun with weeds, or on a sterile soil; so neither can the raspberry, the gooseberry, or the grape, be made to bear well without corresponding attention in pruning, in hoeing, and in procuring a fertile soil. But with this care, and a decent share of common sense superadded, none need despair of eminent success.

Macedon, N. Y. 4th mo., 1842.

J. J. THOMAS.

## CULTURE OF MELONS.

"MESSRS. EDITORS.—Will you be so good as to give in your next *Cultivator* some directions as to the raising of melons? It is a fruit of which I am very fond, but in the cultivation of which I am not always successful.

A SUBSCRIBER."

If there is one thing more essential than another in the culture of melons, it is a sandy soil; and if not such naturally, must be made so artificially. To think of growing melons on a compact clay soil, however rich it is made, is idle. We now rarely fall of a supply of melons; but we were obliged to correct the soil of our garden with many a load of sand before we could be sure of success. We sometimes succeeded, in favorable seasons, by covering a load of manure with inverted turf or garden mold; in this manner digging a hole some 12 or 18 inches deep, filled with light, rich earth, and on this planting the melon seeds. Some of the best melons we have ever seen were grown on a bed made of some two feet of stable manure in a box, on which was placed a foot of rich earth. The seeds were planted in this, and common sash frames placed over them until all danger to the young plants from frost had passed. The vines were then allowed to run over the sides of the box, and from a few vines a large crop of melons was produced. The difficulty with such beds of manure is the danger the plants run of suffering from drouth. It is better, therefore, to make the beds for the plants where this evil will not occur, that is in the soil itself. If your soil has the proper quantity of sand, make it rich with hog, sheep, or hen dung—the last is the best—and making the earth for the hills fine, plant your seeds some eight feet apart. Few plants suffer so much from being crowded as melons; and if the hills are too close, or too many stalks are allowed in a hill, large, fine melons will not be produced. The seed should not be planted deep; an inch is sufficient; and if after covering them a pane of glass is laid on the spot, the germination will be considerably hastened. We have used boxes made of six inch boards, over which small sashes of four lights were secured in such a way as to be movable. These we have found not only excellent for melons but for other plants, such as tomatoes, peppers, &c., which in our climate it is desirable to forward as fast as possible. We have been in the habit of sowing lettuce in the intervals between the hills, as this will occupy the space until the vines begin to spread. Mr. C. E. Clarke, of Jefferson county, recommends radishes and early beans in addition to lettuce. After the plants are well up, all the attention they will require is hoeing frequently, (get up early in the morning, before the sun rises, to do this); thinning out, so that but two or three plants are left in a hill; and repelling the attacks of the striped bug and cutworm. The most effectual remedy we have ever found for the first, is a well directed pinch between the thumb and finger; but Mr. C. recommends that at the time of planting, an onion, garlic, or shallot, be placed in the hill. This mode we have never tried, but think favorable of it, and shall test it the coming summer. The best melons we have raised, at least the larger ones, were from Long-Island, or Jersey seed. Some of the most delicious and fine flavored ones, but small compared with the L. I. ones, were produced from seed lately introduced into the South, and termed the Ice melon, from the extreme thinness and brittleness of the rind. The melon will endure a great degree of heat and dryness without injury; but if it is necessary to water, it should be done with rain water, and a liberal supply be given. Watering in a hot sun is injurious rather than beneficial.

## PRUNING ORCHARDS.

"MESSRS. EDITORS.—I have recently commenced reading the *Cultivator*, and know not what it has contained previous to the January number of the present year on the subject of pruning apple trees. I observe in the number for February, on 31st page, that in pointing out "Work for the Month," you say—"trees may be pruned this month." In the same paragraph you state that—"it is wrong to suffer years to elapse without pruning, since when it is then done, the cutting out of branches of many years' growth makes large wounds, and injures the tree." I have had some experience in raising an orchard; and my practice has been to prune apple trees at any season of the year; and sometimes I have found it necessary to cut off a limb of three or four inches in diameter, and without any injury to the tree. During many years, I have kept in my orchard in the spring, summer and autumn, a kettle of grafting wax, made by mixing three parts of tar with one pound of bees' wax, one pound rosin, and six ounces of tallow, and placing the kettle over a fire until the rosin, bees' wax and tallow are all melted. The kettle is then placed where its contents

become so cold as to begin to stiffen, and one pound of Spanish brown or yellow ochre is stirred in and thoroughly mixed with them. When cold, it will be of about the consistence of shoe-maker's wax, and is applied to the tree with a round or square pointed knife, kept in the kettle for that purpose. A thin coat is sufficient. I have pruned off large limbs in the summer, when the bark peeled easily; and by cutting through the bark round the limb with a knife before sawing off the limb; the bark was not started on the stock. I then smoothed the wound with a sharp knife, and applied the wax. Some of the wounds I have thus made and covered have been from 6 to 8 years in growing over; during all which time the wax has adhered, and was only pushed off by the encroachment of the new wood and bark, and not until completely healed over. I have removed the wax after it had been years thus in use, and have found the wood under it as sound and white as when the wax was applied. Were I to use no kind of composition to cover the wound made by pruning, I should prune within the last ten days before the blossoming of the trees. The wounds then made will grow over much quicker than those made in February.

In the same article of your February number, you say—"the latter part of this month is an excellent time to select and cut cions." My experience here, "down east," proves that the best time to cut cions is from the 10th to the 25th of April, according to the early or late commencement of vegetation. If cut so late, they will need no attention to preserve them in good order to the time for grafting, which is here during the first half of May. Cions cut so late will not need claying at the butts. You have only to lay them on the floor of a dry, cold cellar, until it is time to use them.

Bucksport, Me., March 16, 1842. SAM'L M. POND.

P. S. Should the heat of a summer's day melt the wax applied as above, so as to cause it to soften sufficiently to run off, you have only to melt it, and stir in more ochre.

## GARDEN HINTS.

There are many plants that should be transplanted from the hot bed the last of this month. Of these, the cabbage and tomato are perhaps the most common. In transplanting, the ground should not be wet; but just moist enough to pulverize easily, and press close upon the roots without baking, or becoming hard when dry. A cloudy, but not a rainy day is best for transplanting. Melons and cucumbers, when first transplanted, should be shaded from the hot sun, or it would be fatal to them. Lettuces started in a hot bed may be transplanted into beds, and will produce fine heads. It is a good plan in removing plants to dip the roots in a thick paste, or mud made of rich soil and water; this adheres to the roots, and prevents their drying up, or the exposure to air of the delicate rootlets. Plants from a hot bed will be more tender, and require more attention, than if started in the open air; but the trouble is well repaid by their being so much sooner ready for the table.

## Silk Culture in the United States.

## HATCHING, FEEDING, CLEANING, HURDLES, &amp;c.

As soon as the warm weather has become settled, from the 1st to the 15th of May, the eggs intended to be hatched may be spread out upon a table, either in the cocoonery or an ordinary room. A small ordinary room is best, because in case of a cold spell of weather a fire may be made, and the temperature thus kept equable. In small, domestic establishments, nothing more need be done than to spread out the papers containing the eggs, and thus let them remain till the young worms make their appearance. If the eggs are loose, not on paper or cloth, spread them out thinly on paper, just as if the worms had laid them so. If the eggs are in good condition, they will hatch in from 5 to 10 days from the time they were brought out. The worms generally hatch in the morning. On the first day of the hatching but few will come out, and these need not be attended to. In the morning of the second day a considerable quantity will appear, and they must be secured. The simplest way of doing this, is to lay some whole leaves of the mulberry flat upon the worms, covering the whole. About one hour afterwards, the young worms having attached themselves to the leaves, take each leaf by the stem and lay it gently upon another table, and thus continue till the whole are secured. The next day proceed in the same way, and on the next again. Generally, it is not advisable to save any that do not hatch on the second, third and fourth days, as those that appear afterwards are apt to be weakly and indolent, giving more trouble than they are worth. Observe that each day's hatching must be carried to a separate table. When all the worms are thus secured, feed them with fresh leaves as often as you find them without food; and at all events, give them fresh leaves three times a day—simply lay the leaves flat upon the worms. The better plan is to feed them in small quantities at each time, taking care that they are never without fresh food. While young, and if you have not plenty of leaves, it is well enough to tear or cut the leaves into small fragments and scatter them over the worms; but if you have plenty, this is not necessary. In from five to seven days the worms will begin to change their skin, which you will observe by their being asleep. In 24 hours many of them will revive; and as soon as this is observed, lay on some leaves and remove the worms, as was done from the hatching table, to another table or shelf, and thus continue each day till



all are revived, taking care to place those that revive each day on separate tables, as before. The worms are then to be fed as before, as much as they will eat of fresh leaves. It is needless to go over in detail the proceedings of each age, as the periods between the moultings are equal, the same things are to be done precisely in all, except that, as the worms grow larger they require more food. The quantity of food must always be regulated by the appetite of the worms; if they eat more you must give them more; if they eat little you must give them little. Bear in mind that it is important that at each moulting or change of skin, each day's revival must be kept separate. The object of this is, that when the worms come to spin their cocoons, all on each shelf or table may commence as nearly as possible at the same time. This saves much labor and difficulty.

**CLEANING HURDLES.**—After the 2d moulting, when the worms have been removed from shelf to shelf by means of the leaves, the PAPER NETS, described in a previous paper, come into use. When the worms begin to revive in the morning, spread a paper net over the shelf, and lay some fresh leaves on it. An hour afterwards pass the rods into the loops at the ends, and then bear the net to a clean hurdle, laying it down gently. Thus continue to lay the nets on the hurdles every day till all the worms are revived and removed; then clean the hurdle thus vacated of its rubbish, and prepare it for the reception of worms from other tables. It is generally unnecessary to clean the hurdles at any other time than at the several moultings; occasionally, however, this is necessary, and particularly after the third and fourth moultings and during damp weather. It may at these times, of course, be performed in the same way as at the moultings. The paper net that has been carried to a clean shelf with worms on it, will of course remain under the worms and rubbish till the shelf is again cleared, when it will be relieved, must be carefully cleared of the rubbish and hung up to dry for use again.

If very damp weather happens at any time, it will be well to make a brisk fire of shavings or some light fuel to dry the room and purify the air. AIR SLAKED LIME may also be sifted over the worms at all times, every morning before feeding, just enough to whiten the surface of the worms and leaves. If the worms be sickly, or appear dull and torpid, sift over them more lime. The lime should be air slaked, and should be as fine as possible. If the worms on a hurdle appear very sickly with the yellows or other disease, the best way is to take the hurdle immediately out of the room into the open air, where all of the dead worms may be taken from among them; sift lime over the others, lay on fresh leaves, and leave them to themselves. Most of them will soon recover, and when well may be returned again to the cocoonery. Whenever one hurdle has been found sickly, others may soon be expected in the same condition; and therefore all should be carefully watched. Every window and door should be opened, and every means used to ventilate the room. Slaked lime should be freely spread over the hurdles and floor of the cocoonery. During the whole process of feeding, from the hatching to the spinning of cocoons, the utmost care should be observed to keep the air in the rooms sweet and pure. In damp weather all the windows and doors should be closed, and fire made to dry the air. In hot, sultry weather, all the windows and doors should be thrown open, taking care not to allow the sun to shine on the worms, but rather to shade the windows next to the sun with blinds or by some other means. When it can be done, always keep the room rather dark. Strong light is very offensive to the worms.

Those who prefer feeding with BRANCHES can do so by laying them on the hurdles instead of picked leaves. After the third moulting, lay the branches with all the leaves on them first across the hurdle five or six inches apart, so that the edges and ends of the leaves will touch. The next time you feed lay them lengthwise, and so on, crossing at each feeding. When the pile gets too high, lay a paper net over the worms as in the other mode; and when the worms have risen through the meshes, carry the net with the worms to a clean hurdle, and go on again as before. The same process is to be gone through in cleaning the hurdles, moulting, &c. Some people feed in this way from beginning—never clean nor separate the worms. This practice may succeed sometimes, but I should not dare to advise it.

Above all things, take care not to hatch more worms than you can properly attend to. Don't run the risk, by feeding too many, of losing the whole. This has caused more failures than all other causes combined. Ten thousand worms, well fed and well attended to, are worth more than fifty thousand sparingly fed and badly managed. Don't be deceived by the appearance of the little worms when first hatched. Unless you are a pretty good judge, a parcel of young worms will appear to you to number not more than 20,000, when they really amount to 100,000; and you will probably not find out your mistake till your hurdles become piled up, and your floor covered with them; or till just as you begin to expect to see them spinning, you find your leaves exhausted and your worms perishing. Beware of this great mistake. Many a hundred bushels of cocoons have been missed in this way, just as the proprietor was beginning to count the dollars he was to receive for them. Let no argument induce you to attempt too many, and be sure you are right in the estimate you make of the quantity of food you will be able to supply.

My next paper will take up the subject of the spinning of the cocoons and the preparation for it, &c.

Baltimore, March, 1842.

G. B. SMITH.

#### PRODUCTION OF SILK IN THE U. STATES, &c.

An important error having been discovered in the tables of Agricultural Statistics, recently laid before congress, by the commissioner of the patent office, the undersigned addressed a letter to the commissioner, suggesting its occurrence, and has received from him the following explanation. The error consists in the amount of silk cocoons estimated to have been produced in Massachusetts. The amount is set down in the tables at 198,432 pounds; whereas, it undoubtedly should have been 19,843 pounds. The effect of the error is apparent. It makes it appear that we have produced in the United States 379,272 pounds of silk cocoons, and consequently the equivalent quantity of raw silk (37,927 pounds.) Deducting the amount erroneously attributed to Massachusetts, and the total estimated production of silk cocoons in the United States during the year 1841 is 200,683 pounds; of which the equivalent in raw silk is 20,068 pounds. I have seen so much injury (to the silk interest especially) from exaggerated statements and estimates of results, that I am particularly sensitive on this point, and have therefore obtained the explanation of Mr. Ellsworth, with his permission to publish it. No one need be told of the extreme difficulty of obtaining accurate results from so wide a field, and from so numerous a class of operatives as are presented by the experiments in silk culture. The wonder is, that greater errors have not been committed, not only in this item of the tables, but in others. So far as I have been able to arrive at conclusions, the estimates are as nearly correct in all other respects as the means afforded could possibly admit. The other portions of Mr. Ellsworth's letter are deemed sufficiently interesting for general dissemination. The importance of green corn stalk fodder, which Mr. Ellsworth has brought to the notice of American farmers lately, and to which he now alludes, will not escape the attention of those interested. I may be permitted to state here in corroboration of his views, that a milk-man in the vicinity of Baltimore, who keeps a large number of cows, is every year in the habit of sowing corn broadcast, and mowing the fodder for daily feeding to his cows; and though he keeps no record of his results, he undoubtedly feeds as many cows from five acres in this way, as he would be able to do from twenty acres in any other fodder.

GIDEON B. SMITH.

SIR—Your very kind letter of the — ult. is received. From my qualified remarks that there had been "quite" an increase in the culture of silk, the error in the statistics as published, on reflection is obvious. The estimates were transmitted to me, sometimes in cocoons and sometimes as silk, rendering it necessary to bring the two together, by increasing the latter at least ten times. Although I cannot at the moment ascertain from the person who assisted me precisely how the error occurred, I am satisfied that it exists, and that it was doubtless occasioned by reducing the two classes of products reported to me; thus giving one figure, (the last,) too much. I am glad you have pointed out the mistake, which I should doubtless have discovered had I not been confined to the precise time on which my report had to be transmitted to congress.

The work of improvement is onward; and while credulity will be daily taxed in crediting the improvements of the age, I hope that scepticism will not too obstinately resist the light of science or the tests of experiment; above all, that if there is tenacity in the former, it will be assailed by argument rather than ridicule. I make this remark from noticing the sceptical surprise manifested by some of our agricultural friends in their periodicals, especially the New Genesee Farmer. The statistics I have submitted are based upon the census of congress. With the exception of the article of silk, where you notice the error, no very great difference appears, farther than the season or increase of population, &c., will justify.

To be informed that the juice of corn stalk on Beaum's Saccharometer is about the same with that of cane in this country, or that it is five times greater than that of maple, and three times that of beet, may appear wonderful. Still, the experiments of Mr. Webb justify fully the belief. Indeed, he has kindly deposited in the patent office samples of sugar and molasses obtained from the corn stalk, the simple machine used in the manufacture, together with many accurate details of the process.

The New Genesee Farmer admits that 40,837 pounds of Herd's grass, when green, has been raised to an acre, and yet thinks it incredible that five times as much weight of corn stalks, (so much greater in size and height,) can ever be obtained. But facts are stubborn things. I have carefully weighed the stalks of corn on four square feet of land; the produce was 20 pounds; the stalks were thick and stout, the corn having been sown broadcast; this you will perceive is 5 pounds per square foot, and on an acre 43,560 feet, equal to 217,800 pounds. Although an experiment at the North, where the season is short, might not equal this aggregate, I doubt not that other trials on a rich soil, well prepared, in this latitude will prove the truth of the statement.

You will be pleased to notice the great simplicity of turning lard or pork into oil and stearine, as described in the pamphlet enclosed. I will only add that the oil burns well. Accept the assurance of yours respectfully,

Patent Office, April 6, 1842. H. L. ELLSWORTH.

POTATOES ON A ROCK.—In corroboration of the truth of the "New Discovery in Agriculture," or the production of crops without earth or tillage, Mr. Greeley of the N. Y. Tribune gives the following as related to him by a

respectable farmer: "A portion of his farm was bare rock, which, in view of the small amount of labor he bestowed upon it, he made the most productive. In the spring of the year he laid down or planted his potatoes on this rock, and covering them over with straw, paid no more attention to them until fall, when he merely raked off the dry straw, and exposed a most abundant crop of the finest quality. The advantages of this method of raising potatoes are: 1. No plowing. 2. No hoeing. 3. No digging; the rake only being required. 4. They are perfectly dry; and 5. They are perfectly clean."

"SOWING GRASS SEEDS.—If you intend to sow clover seed alone on your grain fields, you should not think of seeding less than from 12 to 16 pounds to the acre. Timothy, if sown alone, should be in the proportion of 1 to 2½ gallons of seed to the acre."

#### ACKNOWLEDGMENTS.

For articles received the last month, our thanks are due, To GEO. SHERMAN, CHARLES ROBINSON and LEVI DURAND, Esqs., for copies of "The Transactions of the New-Haven Horticultural and the New-Haven County Agricultural Societies for 1841."

To J. PARKER, Esq., Perth Amboy, N. J., for a copy of "A Letter to the Farmers and Graziers of Great Britain, to explain the advantages of using Salt in the various branches of Agriculture, and in feeding all kinds of farm stock, by Samuel Parkes, F. L. S." &c. republished in Philadelphia in 1819.

To Hon. D. D. BARNARD, M. C., for the "Annual Report from the Commissioner of Patents."

To Rev. T. S. HINDE, Mount-Carmel, Ill., for a copy of "The Western Shepherd, by Geo. Flower, of Albion, Ill."

To L. SMITH, Esq., Fallsburgh, N. Y., for a small box of the "Yam Potatoes," described by him in a communication in another part of this paper. Mr. S. informs us that he will deliver these potatoes at Newburgh, from which they can be shipped north or south, at \$6 per barrel.

To Hon. H. L. ELLSWORTH, Com. Patent Office, for a pamphlet, published by the National Agricultural Society, on the "Mode of Manufacturing Sugar from the Corn Stalk, and of Oil and Stearine from Lard," &c.

To T. B. WAKEMAN, Esq., New-York, for Rev. Mr. Choules' Oration before the American Institute at its last Fair.

To ———, for a very highly finished "Livingston County Plow," manufactured by Howard Delano, Mottville, Onondaga county, N. Y., to which was awarded the first premium of the State Ag. Society, at its fair at Syracuse. A cut of this plow was given in our last number. As no letter accompanied it, we do not know to whom we are indebted for it.

To PARSONS & Co., Flushing, for a Catalogue of their Commercial Garden and Nurseries at Flushing.

#### NOTICES TO CORRESPONDENTS, &c.

In addition to those published in this paper, we have to acknowledge the receipt, during the last month, of communications from Justin Morgan, Tart, T. Foster, N. Titus, Economist, Camdonian, E. A. Hall, P. Ott, L. Physick, Dutchess Co. Farmer, E. H. Northrop, Tyler Fountain, Wm. Partridge, D. S. Howard, Lewis C. Beck, Anon. Friend, H. Clark, A. B. Allen, H. C. Godfrey, S. E. T., Lawrence Smith, John Moxon, Wilson Newman.

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#### MULBERRY TREES ON SHARES.

AS there is every prospect that the demand for the finest kinds of Mulberries for silk will be greater next spring than the supply, I now offer to furnish 200,000 superior Trees of the Alpine, Elata, and Multicaulis Mulberries, two years old, to be cultivated on equal shares; one-half the trees produced therefrom to be delivered to my order in the spring of 1843. The expense of packing and transportation to be paid by the person desiring them. The cost of matting and delivery to a vessel or transportation line will be \$2 per thousand; and any person desiring to contract as above, with, on remitting sufficient to cover this expense, receive, forthwith the number he may desire. WM. R. PRINCE

Linnaean Botanic Garden and Nurseries, Flushing, April 18, 1842.

#### PLEASURE GROUND, DECORATIONS, FOUNTAINS, URNS, FIGURES, &c.

THE subscriber is ready to supply Fountains, Urns, and Figures, for Green Houses, Grass Plots, and Fish Ponds. The above decorative articles are made of metal, (in imitation of marble,) and are calculated to stand a northern winter. Figures and Jets, appropriate for any particular situation, supplied. A plan for raising water may be seen by referring to the Cultivator, number 11, 1840. D. L. FARNHAM, New-York, April, 1, 1842. 247 Water-street.

FROM THE STEAM PRESS OF C. VAN BENTHUYSEN.